

STIC Search Report

EIC 1700

STIC Database Tracking Number: 150413

TO: Duc Truong
Location: 10D71
Art Unit : 1711
April 22, 2005

Case Serial Number: 10/713469

From: Kathleen Fuller
Location: EIC 1700
REMSSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28



SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: TRUONG, MIC Examiner #: 6932 Date: 4/11/05
Art Unit: 1711 Phone Number 30 2-1681 Serial Number: 10/713,269
Mail Box and Bldg/Room Location: 60271 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Formula of claim 17 y. ~~Derived from~~ related to the reactants of
6/74,356 \Rightarrow any other monomer C + monomer D.
Thanks.

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr.

APR-11 REC'D

STAFF USE ONLY

Type of Search

Vendors and cost where applicable

Searcher: <u>K. Fuller</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>10</u>	Questel/Orbit _____
Date Searcher Picked Up: <u>✓</u>	Bibliographic _____	Dr.Link _____
Date Completed: <u>4/22/05</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>40</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>70</u>	Other _____	Other (specify) _____

=> file reg

FILE 'REGISTRY' ENTERED AT 13:07:18 ON 22 APR 2005

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STRUCTURE FILE UPDATES: 21 APR 2005 HIGHEST RN 848979-49-7

DICTIONARY FILE UPDATES: 21 APR 2005 HIGHEST RN 848979-49-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> file hcaplus

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FILE COVERS 1907 - 22 Apr 2005 VOL 142 ISS 18

FILE LAST UPDATED: 21 Apr 2005 (20050421/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que

L4 SCR 2043

L6 STR |

O~G1~O Cb~C~Cb Cy @7
1 2 3 @4 5 @6

VAR G1=7/4-1 6-3

NODE ATTRIBUTES:

NSPEC IS RC AT 5

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 4

GGCAT IS UNS AT 6

GGCAT IS UNS AT 7

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L8 STR 2

Cb~G2 Ak~Cb Cb~C~O Cb~S~O Cb~P~O
1 2 @3 4 11 @5 6 12 @7 8 13 @9 10

Cb @14

VAR G2=14/3/5/7/9

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 6

CONNECT IS E1 RC AT 8

CONNECT IS E1 RC AT 10

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 3

GGCAT IS UNS AT 4

GGCAT IS UNS AT 11

GGCAT IS UNS AT 12

GGCAT IS UNS AT 13

GGCAT IS UNS AT 14

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L10 SCR 1840

L13 STR

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1 2 3 @4 5 @6

VAR G1=7/4-1 6-3

NODE ATTRIBUTES:

NSPEC IS RC AT 5

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 4

GGCAT IS UNS AT 6

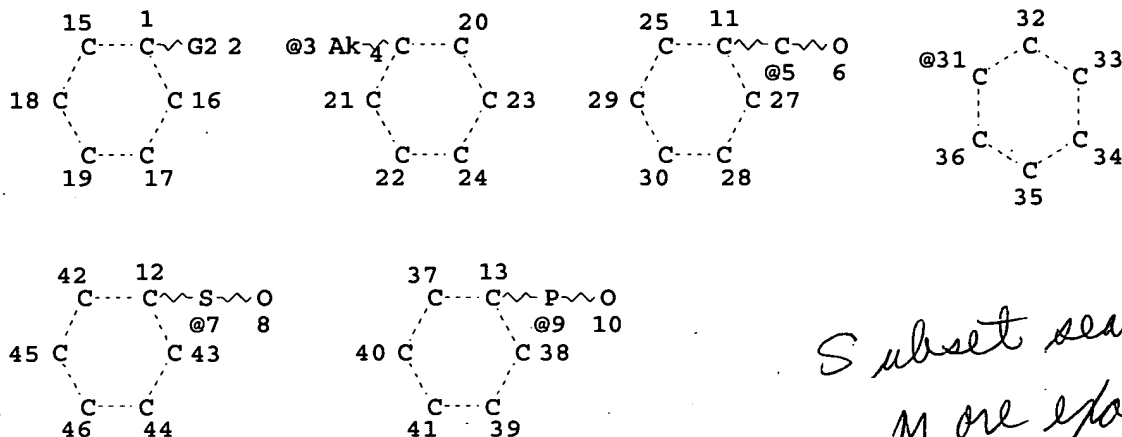
31, 368 polymers from
structure queries
1 and 2

Subset search with
more effect A

GGCAT IS PCY UNS AT 7
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE
 L16 STR



*Subset search with
 more exact B*

VAR G2=31/3/5/7/9

NODE ATTRIBUTES:

CONNECT IS E1 RC AT 6

CONNECT IS E1 RC AT 8

CONNECT IS E1 RC AT 10

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 3

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

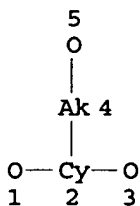
RSPEC I

NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE

L25 31368 SEA FILE=REGISTRY SSS FUL L6 AND L8 AND L4 AND L10

L26 STR



subset search with D



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 2

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

L28 309 SEA FILE=REGISTRY SUB=L25 SSS FUL L26
 L30 8751 SEA FILE=REGISTRY SUB=L25 SSS FUL L13 AND L16
 L31 20 SEA FILE=REGISTRY ABB=ON L28 AND L30 -
 L32 14 SEA FILE=HCAPLUS ABB=ON L31

*structures with
 more exact
 A+B+D*

14 CA references

=> d l32 bib abs ind hitstr 1-14

L32 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:304068 HCAPLUS
 DN 141:54732
 TI Synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers
 AU Chow, Hak-Fun; Leung, Cham-Fai; Xi, Luan; Lau, Leo W. M.
 CS Department of Chemistry, The Chinese University of Hong Kong, Shatin, Hong Kong
 SO Macromolecules (2004), 37(10), 3595-3605
 CODEN: MAMOBX; ISSN: 0024-9297
 PB American Chemical Society
 DT Journal
 LA English
 AB Two different approaches toward the syntheses of crosslinked dendritic networks from surface-functionalized polyether dendritic monomers were reported. The first series (type I) of dendritic networks (G1-G3) was prepared by a 3:2 copolymn. of surface bifunctionalized (G1-G3) dendritic monomers having two reactive arylethynyl surface groups with a small size trifunctional organoplatinum branching monomer {tris[trans-chlorobis(triethylphosphine)platinum]mesitylene-2,4,6-triethynylene} containing three reactive chloroplatinum functionalities. Facile network formation was realized for the G1 dendritic monomer, while linear, nonbranching dendritic polymers were predominately produced from the higher generation G2 and G3 monomers. The second series (type II) of dendritic networks (G0-G2) was prepared by a 3:2 copolymn. of a small size bifunctional organoplatinum monomer {bis[trans-chlorobis(triethylphosphine)platinum]-4,4'-biphenylene-1,1'-diethynylene} having two reactive chloroplatinum moieties with surface-trifunctionalized (G0-G2) dendritic branching monomers with three reactive arylethynyl surface groups. Highly crosslinked dendritic networks were formed in all three generation of dendritic monomers. The structures of the soluble, linear dendritic polymers and the insol. dendritic networks were characterized by NMR spectroscopy, gel permeation chromatog., SEM, scanning tunneling microscopy and/or energy-dispersive x-ray spectroscopy. The difference in the copolymn. behavior between these two approaches was rationalized in terms of steric inhibition during crosslinking in the type I dendritic network architecture.
 CC 35-6 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 29
 ST platinum polyacetylene polyether dendrimer
 IT Polyethers, preparation
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (polyacetylene-, dendrimers; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)
 IT Dendritic polymers
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (polyacetylene-polyethers; synthesis and characterization of outer

sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

IT Polyacetylenes, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (polyether-, dendrimers; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

IT 702702-01-0P 702702-03-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (G0 dendrimer; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

IT 702702-05-4P

RL: SPN (Synthetic preparation); PREP (Preparation) (G0 dendrimer; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

IT 639515-47-2, 1-[(10-Bromodecyl)oxy]-4-iodobenzene

RL: RCT (Reactant); RACT (Reactant or reagent) (G0 dendron; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

IT 702702-02-1P 702702-04-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (G1 dendrimer; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

IT 702702-06-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (G1 dendrimer; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

IT 639515-52-9

RL: RCT (Reactant); RACT (Reactant or reagent) (G1 dendron; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

IT 639515-62-1

RL: RCT (Reactant); RACT (Reactant or reagent) (G2 dendron; synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

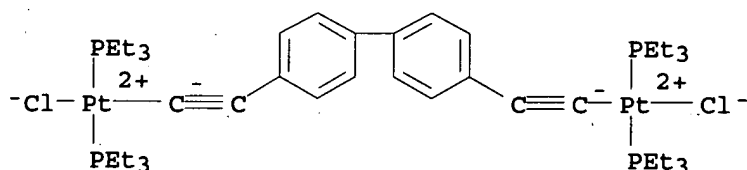
IT 182863-38-3DP, polymer with aryethynyl surface-functionalized dendrimers 702702-07-6P 702702-08-7P 705264-16-0DP, polymer with aryethynyl surface-functionalized dendrimers 705282-89-9P 705282-91-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis and characterization of outer sphere-outer sphere connected organoplatinum dendritic networks from surface-difunctionalized and surface-trifunctionalized dendritic monomers)

- IT 1066-54-2, Trimethylsilylacetylene 13965-02-1 27955-94-8,
1,1,1-Tris(4-hydroxyphenyl)ethane 38215-38-2, 1,1'-Diethynyl-4,4'-
biphenyl
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and characterization of outer sphere-outer sphere connected
organoplatinum dendritic networks from surface-difunctionalized and
surface-trifunctionalized dendritic monomers)
- IT 639515-77-8DP, 4-tert-butylphenoxypropyl and ethynylphenoxydecyl ethers,
polymers with organoplatinum compds.
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(synthesis and characterization of outer sphere-outer sphere connected
organoplatinum dendritic networks from surface-difunctionalized and
surface-trifunctionalized dendritic monomers)
- IT 705264-16-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of outer sphere-outer sphere connected
organoplatinum dendritic networks from surface-difunctionalized and
surface-trifunctionalized dendritic monomers)
- IT 705282-91-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of outer sphere-outer sphere connected
organoplatinum dendritic networks from surface-difunctionalized and
surface-trifunctionalized dendritic monomers)
- RN 705282-91-3 HCAPLUS
CN Platinum, [μ -([1,1'-biphenyl]-4,4'-diyl)-2,1-
ethynediyl]dichlorotetrakis(triethylphosphine)di-, stereoisomer, polymer
with 1,1',1''-ethylidynetris[4-[3-[3-[3-[4-(1,1-
dimethylethyl)phenoxy]propoxy]-5-[[10-(4-ethynylphenoxy)decyl]oxy]phenyl]p
ropoxy]benzene] (9CI) (CA INDEX NAME)

CM 1

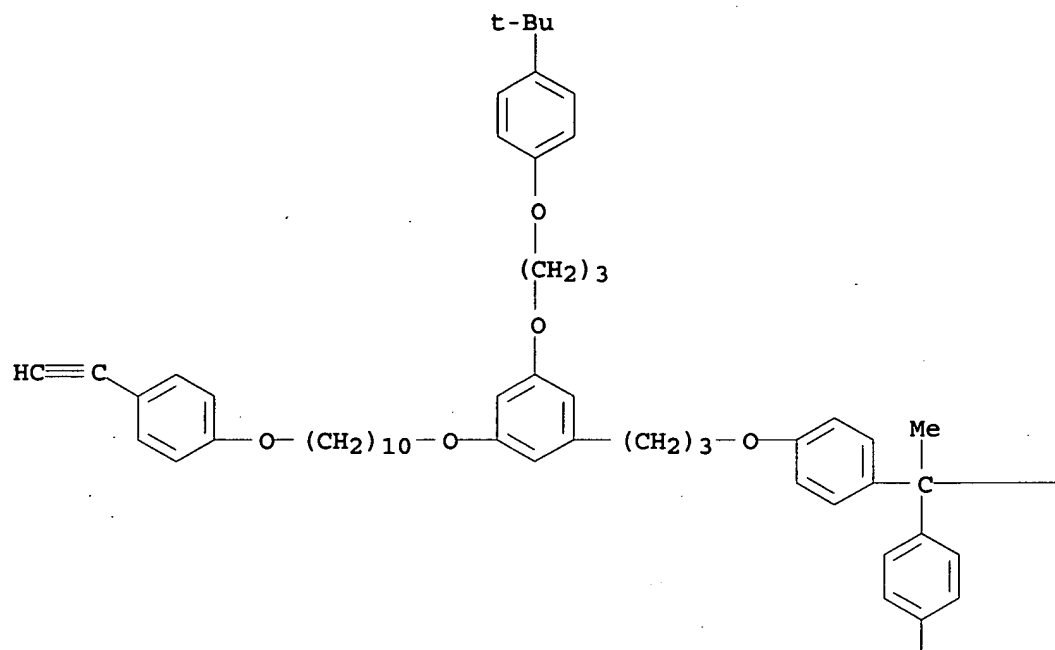
CRN 705264-16-0
CMF C40 H68 Cl2 P4 Pt2
CCI CCS



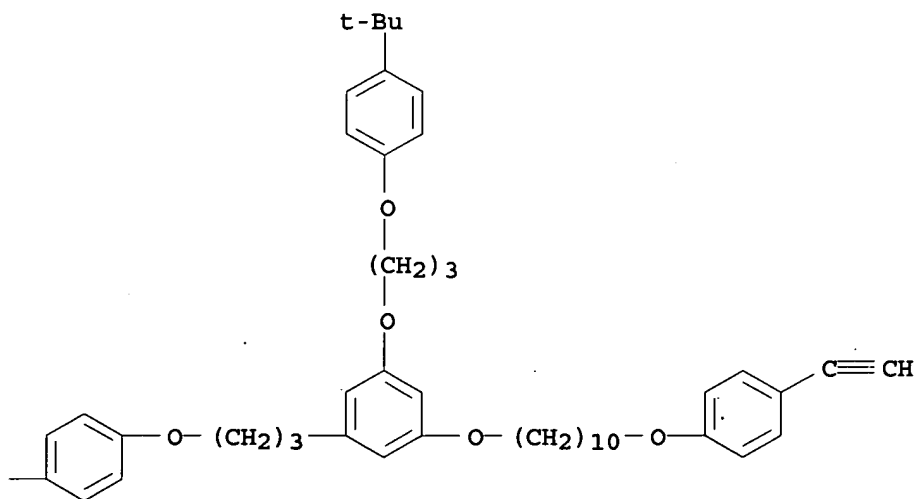
CM 2

CRN 702702-06-5
CMF C140 H174 O15

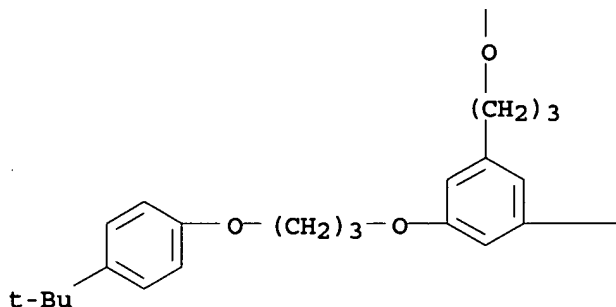
PAGE 1-A



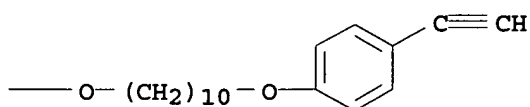
PAGE 1-B



PAGE 2-A



PAGE 2-B



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:139363 HCAPLUS

DN 140:182769

TI Fluorine-containing poly(aryl ethers), curable compositions, cured materials, adhesives, and ionic conductors therefrom, and manufacture of solvent-soluble engineering plastics therefor

IN Akutagawa, Hironobu; Omote, Kazushi; Matsumoto, Takeshi; Nishiji, Ai; Yoshida, Masaya

PA Nippon Shokubai Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

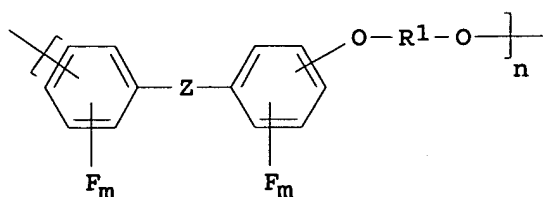
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2004051978	A2	20040219	JP 2003-155624	20030530
PRAI	JP 2002-160397	A	20020531		

GI



- AB The F-containing poly(aryl ethers), showing high heat resistance and mech. strength, contain I units (R_1 = Cl-150 divalent organic group; Z = divalent organic group, single bond; $m = 1-4$) and have OH and/or phosphoric acid groups in R_1 . Solvent-soluble widely-useful engineering plastics are manufactured using compds. containing 2 of phenolic OH groups and ≥ 1 alc. OH groups as starting materials. Also claimed are ionic conductors, useful for electrolyte membranes in fuel cells, etc., comprising F-containing poly(aryl ethers) having OH, carboxy, and/or PO_3H groups and proton conductivity-imparting agents. Thus, 4,4'-bis(2,3,4,5,6-pentafluorobenzoyl) di-Ph ether was copolymd. with Epicure 171N (resin) to give F-containing polyether-polyketone, which was mixed with tungstophosphoric acid and cured to give a film showing electrocond. $3.2 + 10^{-5}$ and $6.4 + 10^{-6}$ S/cm, at 80 and 140°, resp.
- IC ICM C08G065-42
ICS H01B001-06; H01M008-02; H01M008-10
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 52
- ST heat resistant arom fluoropolymer polyether polyketone ionic conductor; pentafluorobenzoyl diphenyl ether copolymer tungstophosphoric acid fuel cell electrolyte; fluorine contg polyaryl ether heat resistance mech strength adhesive; solvent sol engineering plastic arom polyether heat resistance; hydroxy phosphoric contg fluoropolymer polyether polyketone heat resistance
- IT Polyethers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aromatic, fluorine-containing, OH- and/or phosphoric acid-containing; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)
- IT Fuel cell electrolytes
Heat-resistant materials
Ionic conductors
(fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)
- IT Adhesives
(heat-resistant; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)
- IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-, aromatic, OH- and/or phosphoric acid-containing; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)
- IT Polyketones
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polyether-, aromatic, fluorine-containing, hydroxy-, carboxy-, or phosphoric acid-containing; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)

IT Fluoropolymers, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polyether-polyketone-, aromatic, hydroxy-, carboxy-, or phosphoric acid-containing; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)

IT Polyethers, uses
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (polyketone-, aromatic, fluorine-containing, hydroxy-, carboxy-, or phosphoric acid-containing; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)

IT Polyphosphoric acids
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (proton conductivity-imparting agents; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)

IT Heteropoly acids
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (tungstophosphoric, proton conductivity-imparting agents; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)

IT Heteropoly acids
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (tungstosilicic, proton conductivity-imparting agents; fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)

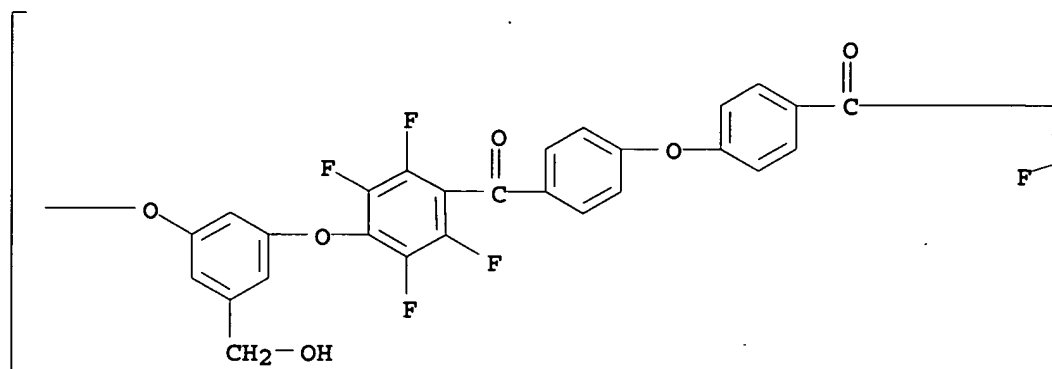
IT 75-13-8DP, Isocyanic acid, esters, polymers with hydroxy-containing aromatic fluoropolymer-polyether-polyketones 323192-69-4P 659720-08-8P 659720-09-9P 659720-10-2P 659720-11-3P 659720-12-4P 659720-68-0DP, 4,4'-Bis(2,3,4,5,6-pentafluorobenzoyl) diphenyl ether-Epicure 171N copolymer ester with phosphoryl chloride, hydrolyzed 659733-00-3P 659733-01-4P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)

IT 659720-09-9P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (fluorine-containing poly(aryl ethers) showing good heat resistance useful for adhesives and ionic conductors)

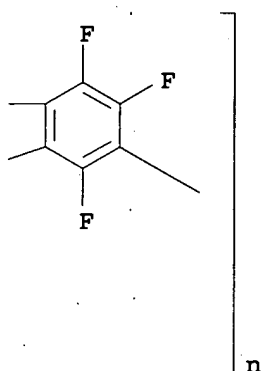
RN 659720-09-9 HCAPLUS

CN Poly[oxy[5-(hydroxymethyl)-1,3-phenylene]oxy(2,3,5,6-tetrafluoro-1,4-phenylene)carbonyl-1,4-phenyleneoxy-1,4-phenylenecarbonyl(2,3,5,6-tetrafluoro-1,4-phenylene)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L32 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:127039 HCAPLUS

DN 137:20186

TI Preparation of polystyrene beads with dendritically embedded TADDOL and use in enantioselective Lewis acid catalysis

AU Sellner, Holger; Rheiner, P. Beat; Seebach, Dieter

CS Laboratorium fur Organische Chemie der Eidgenossischen Technischen Hochschule, ETH-Honggerberg, Zurich, CH-8093, Switz.

SO Helvetica Chimica Acta (2002), 85(1), 352-387

CODEN: HCACAV; ISSN: 0018-019X

PB Verlag Helvetica Chimica Acta

DT Journal

LA English

OS CASREACT 137:20186

AB The preparation and use of TADDOLates, which are dendritically incorporated in polystyrene beads is reported. A series of styryl-substituted TADDOLs with flexible, rigid, or dendritically branching spacers between the TADDOL core and the styryl groups (2-16 in number) has been prepared These were used as cross-linkers in styrene-suspension polymerization, leading to beads

of ca. 400-µm diameter These, in turn, were loaded with titanate and used

for the Lewis acid catalyzed addition of Et₂Zn to PhCHO as a test reaction. A comparison of the enantioselectivities and degrees of conversion (both up to 99%), obtained under standard conditions, shows that these polymer-incorporated Ti-TADDOLates are highly efficient catalysts for this process. In view of the effort necessary to prepare the novel, immobilized catalysts, emphasis was laid upon their multiple use. The performance over 20 cycles of the test reaction was best with the polymer obtained from the TADDOL bearing four first-generation Frechet branches with eight peripheral styryl groups: the enantioselectivity, the rate of reaction, and the swelling factor were essentially unchanged after numerous operations carried out with beads of 400- μ m diameter and a degree of loading of 0.1 mmol TADDOLate/g polymer, with or without stirring. The rate with the dendritically polymer-embedded Ti-TADDOLate was greater than that measured with the corresponding monomer. Possible interpretations of this phenomenon are proposed. A polymer-bound TADDOL, generated on a solid support (by Grignard addition to an immobilized tartrate ester ketal) did not perform well. Also, when polystyrene beads were prepared by copolymer of styrene, a zero-, first-, or second-generation dendritic cross-linker, and a mono-styryl-substituted TADDOL derivative, the performance in the test reaction did not rival that of the dendritically incorporated Ti-TADDOLate. Finally, the dendritically immobilized Cl₂ and (TsO)₂Ti-TADDOLate were applied as chiral Lewis acid to preferentially prepare one enantiomer of the exo and the endo (3 + 2) cycloadduct, resp., of di-Ph nitron to 3-crotonoyl-1,3-oxazolidinone; in one of these reaction modes, an interesting conditioning of the catalyst was observed: with an increasing number of application cycles, the amount of polymer-incorporated Lewis acid required to induce the same degree of enantioselectivity, decreased; the degrees of diastereo and enantioselectivity were, again, comparable to those reported for homogeneous conditions.

- CC 25-7 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 ST titanium TADDOLate dendrimer prepn stereoselective addn benzaldehyde catalyst
 IT Catalysts
 (polymer-supported; preparation of polystyrene beads with dendritically embedded TADDOL and use in enantioselective addition of diethylzinc to benzaldehyde)
 IT Dendritic polymers
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of polystyrene beads with dendritically embedded TADDOL and use in enantioselective addition of diethylzinc to benzaldehyde)
 IT Addition reaction
 Addition reaction catalysts
 (stereoselective; preparation of polystyrene beads with dendritically embedded TADDOL and use in enantioselective addition of diethylzinc to benzaldehyde)
 IT 30321-37-0
 RL: CAT (Catalyst use); USES (Uses)
 (preparation of polystyrene beads with dendritically embedded TADDOL and use in enantioselective addition of diethylzinc to benzaldehyde)
 IT 129371-31-9DP, dendritic; vinylbenzyl ethers, copolymer with styrene
 RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of polystyrene beads with dendritically embedded TADDOL and use in enantioselective addition of diethylzinc to benzaldehyde)
 IT 183183-92-8P 199277-58-2P 244306-56-7P 244306-58-9P
 434936-63-7P 434936-64-8P 434936-65-9DP, reaction products with naphthylmagnesium bromide 434936-66-0P 434936-67-1P 434936-68-2P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)

(preparation of polystyrene beads with dendritically embedded TADDOL and use
in enantioselective addition of diethylzinc to benzaldehyde)

IT 87-91-2, Diethyl (R,R)-tartrate 100-42-5, reactions 100-52-7,
Benzaldehyde, reactions 1073-67-2 1119-90-0 1137-96-8, Diphenyl
nitron 1321-74-0, reactions 1592-20-7, 4-Chloromethylstyrene
1791-26-0, 4-Vinylbenzaldehyde 7459-73-6, 4-Vinylphenylmagnesium
chloride 21473-01-8 27955-94-8, 1,1,1-Tris(4-hydroxyphenyl)ethane
36875-10-2 109299-92-5, trans-N-Crotonoyl-2-oxazolidinone 183057-74-1
199277-51-5 199277-76-4 199277-79-7 207223-86-7 211857-37-3
312767-12-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of polystyrene beads with dendritically embedded TADDOL and use
in enantioselective addition of diethylzinc to benzaldehyde)

IT 74290-97-4P 87184-99-4P 92035-97-7P 123524-45-8P 199277-57-1P
244306-51-2P 244306-55-6P 434936-48-8P 434936-49-9P 434936-50-2P
434936-51-3P 434936-52-4P 434936-53-5P 434936-54-6P 434936-55-7P
434936-56-8P 434936-57-9P 434936-58-0P 434936-59-1P 434936-60-4P
434936-61-5P 434936-62-6P 434936-65-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation of polystyrene beads with dendritically embedded TADDOL and use
in enantioselective addition of diethylzinc to benzaldehyde)

IT 613-87-6P, (S)-1-Phenyl-1-propanol 33652-83-4P, (S)-1-Phenyl-1-pentanol
158952-87-5P 158952-93-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of polystyrene beads with dendritically embedded TADDOL and use
in enantioselective addition of diethylzinc to benzaldehyde)

IT 199277-58-2P 434936-67-1P 434936-68-2P

RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)

(preparation of polystyrene beads with dendritically embedded TADDOL and use
in enantioselective addition of diethylzinc to benzaldehyde)

RN 199277-58-2 HCAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, $\alpha,\alpha,\alpha',\alpha'$ -tetrakis[4-
[[3,5-bis[(4-ethenylphenyl)methoxy]phenyl]methoxy]phenyl]-2,2-dimethyl-,
(4R,5R)-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

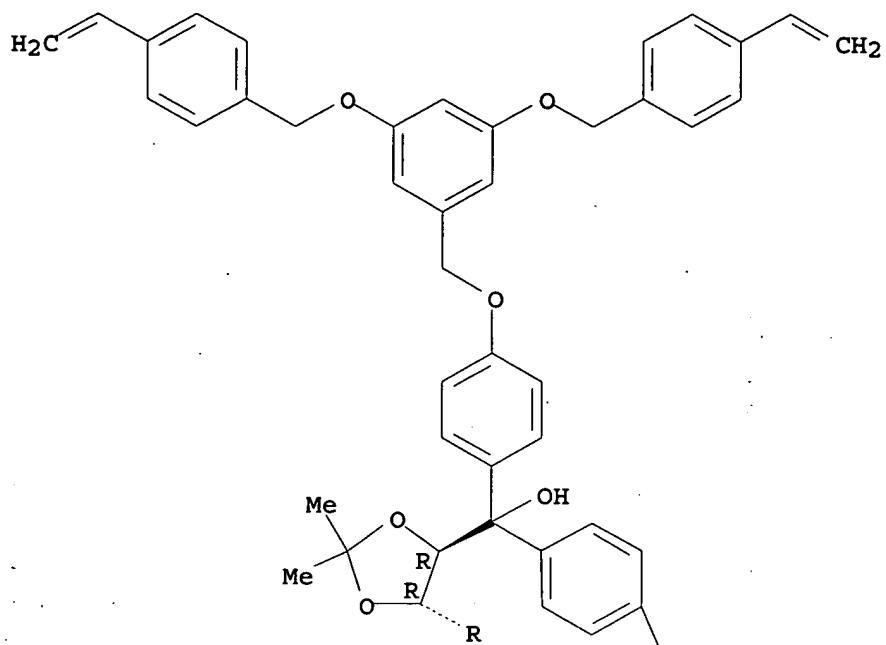
CM 1

CRN 199277-57-1

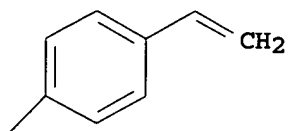
CMF C131 H118 O16

Absolute stereochemistry. Rotation (-).

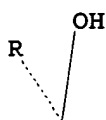
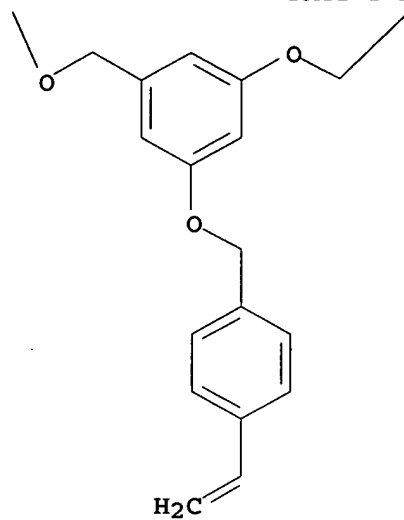
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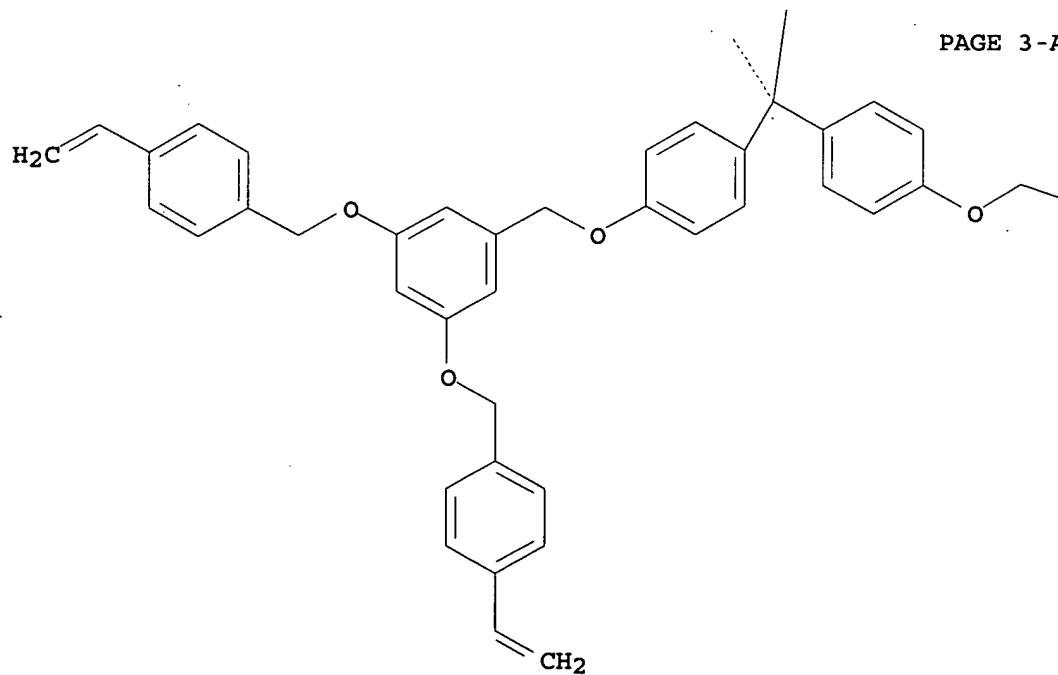
PAGE 1-B



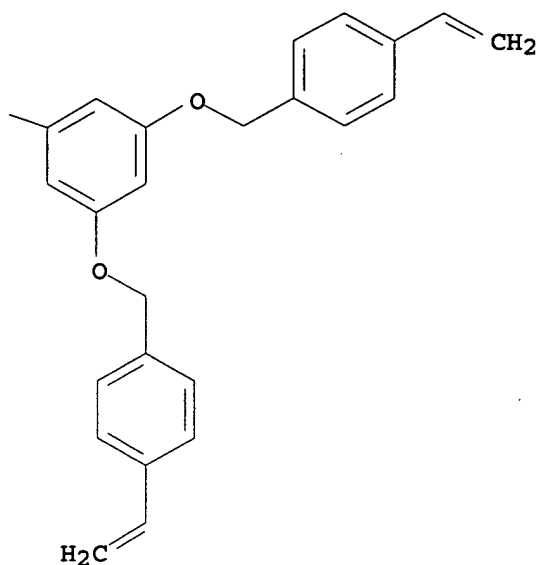
PAGE 2-A



PAGE 3-A



PAGE 3-B



CM 2

CRN 100-42-5

CMF C8 H8

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

RN 434936-67-1 HCAPLUS

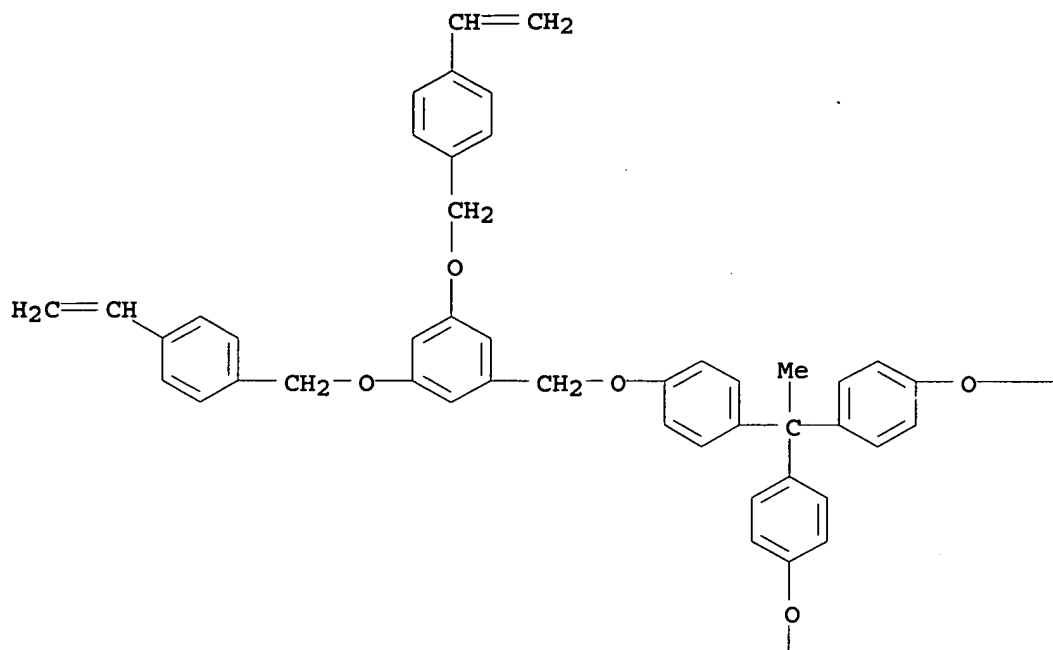
CN 1,3-Dioxolane-4,5-dimethanol, 2-(4-ethenylphenyl)-
 $\alpha,\alpha,\alpha',\alpha'$ -tetraphenyl-, (4R,5R)-, polymer with
 ethenylbenzene and 1,1',1''-ethylidynetris[4-[[3,5-bis[(4-
 ethenylphenyl)methoxy]phenyl]methoxy]benzene] (9CI) (CA INDEX NAME).

CM 1

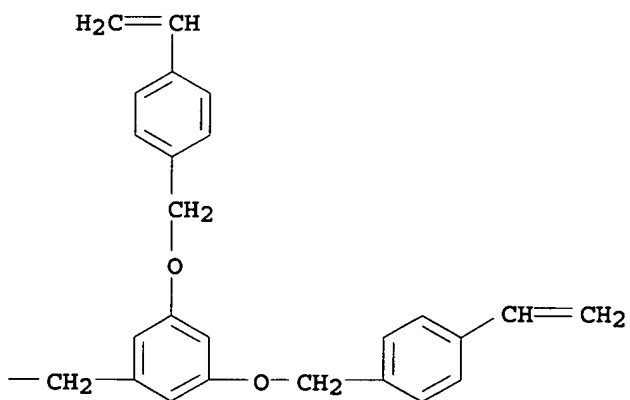
CRN 434936-61-5

CMF C95 H84 O9

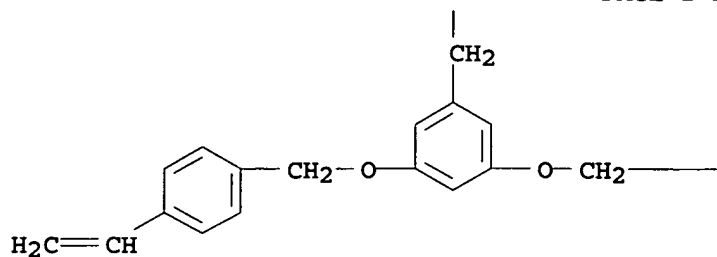
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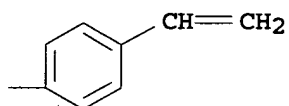
PAGE 1-B



PAGE 2-A



PAGE 2-B

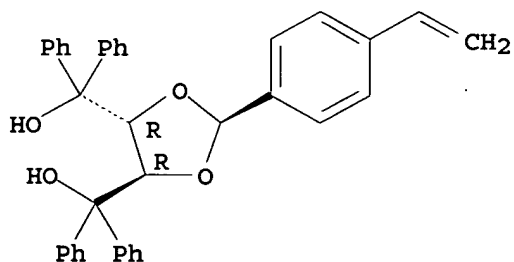


CM 2

CRN 183057-74-1

CMF C37 H32 O4

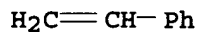
Absolute stereochemistry. Rotation (+).



CM 3

CRN 100-42-5

CMF C8 H8



RN 434936-68-2 HCAPLUS

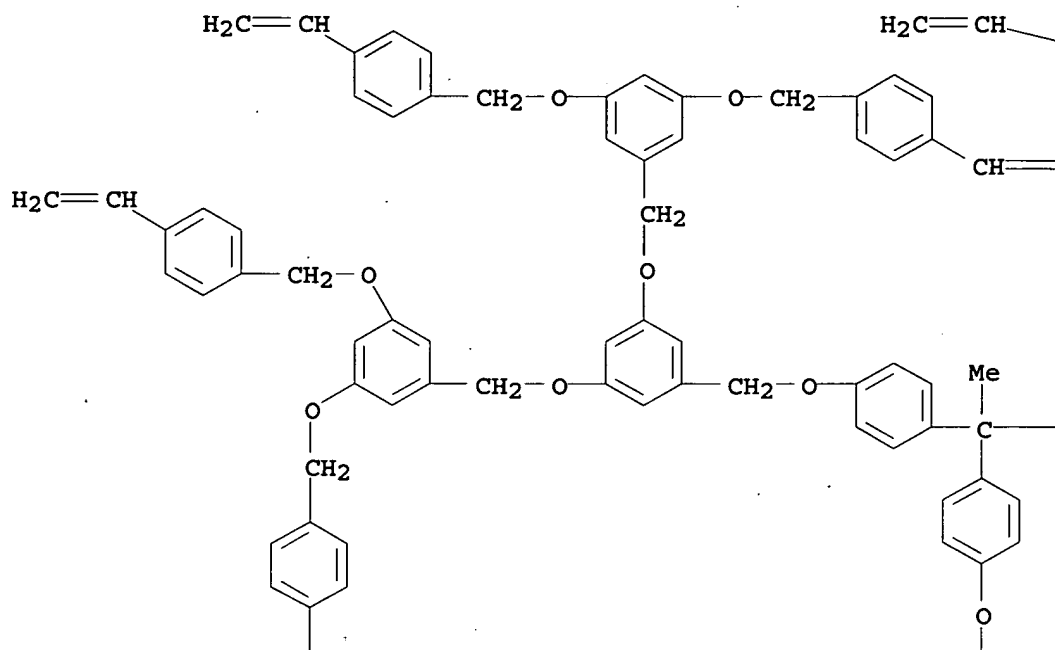
CN 1,3-Dioxolane-4,5-dimethanol, 2-(4-ethenylphenyl)-
 $\alpha,\alpha,\alpha',\alpha'$ -tetraphenyl-, (4R,5R)-, polymer with
 ethenylbenzene and 1,1',1''-ethylidynetris[4-[[3,5-bis[[3,5-bis[(4-
 ethenylphenyl)methoxy]phenyl]methoxy]phenyl]methoxy]benzene] (9CI) (CA
 INDEX NAME)

CM 1

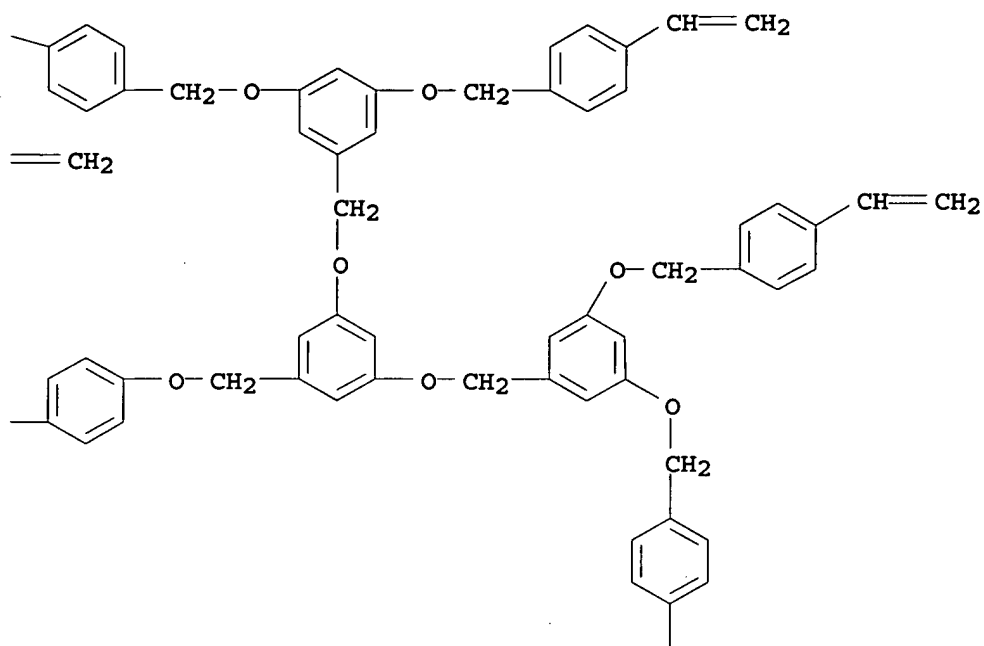
CRN 434936-62-6

CMF C191 H168 O21

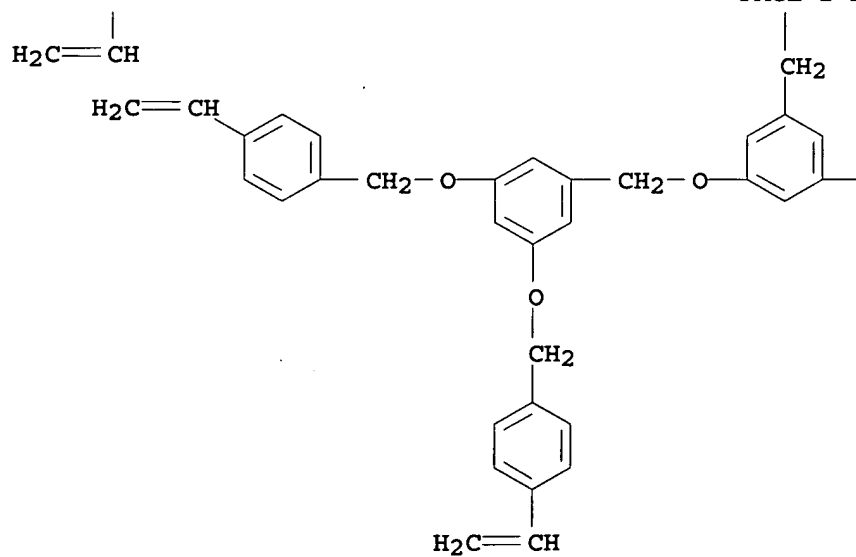
PAGE 1-A



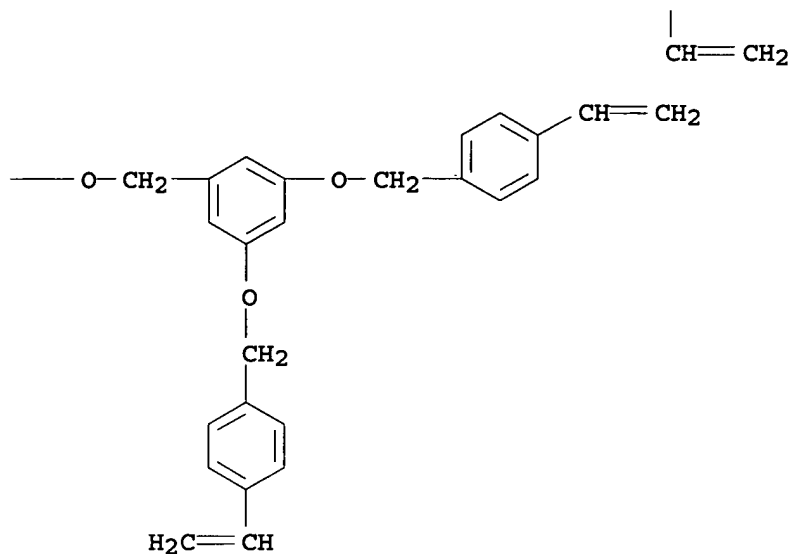
PAGE 1-B



PAGE 2-A



PAGE 2-B

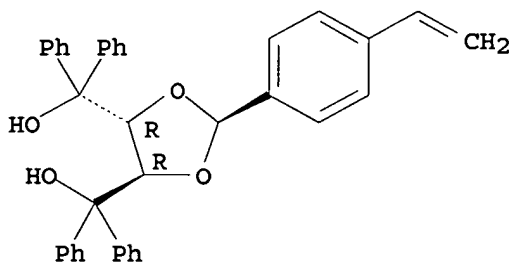


CM 2

CRN 183057-74-1

CMF C37 H32 O4

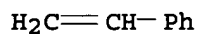
Absolute stereochemistry. Rotation (+).



CM 3

CRN 100-42-5

CMF C8 H8



RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:338610 HCAPLUS

DN 134:340818

TI Novel diamine, novel acid dianhydride, and novel polyimide composition

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

formed therefrom
 IN Okada, Koji; Hara, Shoji; Nojiri, Hitoshi
 PA Kaneka Corp., Japan
 SO PCT Int. Appl., 117 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001032749	A1	20010510	WO 2000-JP7714	20001101
	W: JP, KR, US				
PRAI	JP 1999-311718	A	19991101		
	JP 2000-8390	A	20000117		
	JP 2000-8391	A	20000117		

OS MARPAT 134:340818

AB The diamine and the acid dianhydride are synthesized so as to have a photoreactive and thermally reactive group having one or more double or triple bonds, especially a skeleton of cinnamic acid, chalcone, benzalacetophenone, stilbene, coumarin, pyrone, allyl, propargyl, acetylene, or derivs. of these, and to combine the photoreactivity with the thermal reactivity characteristic of these reactive groups. The polyimide composition is formed from the diamine and the acid dianhydride, having photoreactivity and thermal reactivity. Reaction of m-nitrobenzoyl chloride with 2,2-bis(bromomethyl)-1,3-propanediol, treating the resulting 2,2-bis(bromomethyl)-1,3-bis(m-nitrobenzoate)propane with Cs 4-fluorocinnamate in DMF, and hydrogenation gave 2,2-bis(4-fluorocinnamate Me ester)-1,3-bis(m-aminobenzoate)propane (I). Reaction of I with 2,2-bis(4-hydroxyphenyl)propane-3,3',4,4'-tetracarboxylic acid dianhydride in DMF and stirring the polyamic acid solution with Ac₂O, β-picoline, and DMF gave a polyimide with weight mol. weight 9.2 x 10⁴.

IC C08G073-10; C07C229-44; C07C229-60; C07D307-89; C97D311-12; C07D407-14

CC 35-2 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 37

ST diamine dianhydride polyimide photoreactivity thermal reactivity;

bishydroxyphenylpropanetetracarboxylic acid dianhydride polyimide

IT Amines, preparation

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(diamines; novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)

IT Anhydrides

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(dianhydrides; novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)

IT Optical materials

(novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)

IT Polyimides, preparation

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)

IT Monomers

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)

IT Polyimides, preparation

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

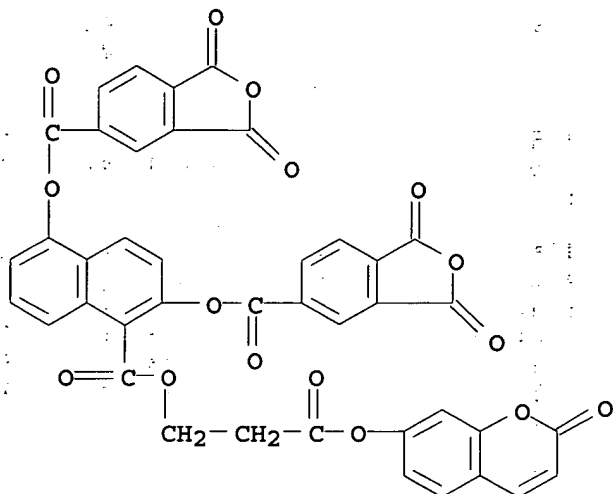
- (polyacetylene-; novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT Fluoropolymers, preparation
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (polyester polyimides; novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT Polyimides, preparation
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (polyester-, fluoropolymer; novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT Polyesters, preparation
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (polyimide-, fluoropolymer; novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT Polyacetylenes, preparation
 Polysulfones, preparation
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (polyimide-; novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT Polyimides, preparation
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (polysulfone-; novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT 338447-61-3P 338447-62-4P 338447-63-5P 338447-64-6P 338447-65-7P
 338447-66-8P 338447-67-9P 338447-68-0P 338447-69-1P 338447-70-4P
 338447-71-5P 338447-72-6P 338447-73-7P 338447-74-8P 338447-75-9P
 338447-76-0P 338447-78-2P 338447-79-3P 338447-80-6P 338447-81-7P
 338447-82-8P 338447-83-9P 338447-85-1P 338447-87-3P
 338447-89-5P 338751-35-2P 338751-77-2P 338752-14-0P
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT 39257-72-2P, 2-Bromoethyl cinnamate 91687-44-4P 133416-39-4P
 139769-24-7P 301165-23-1P 321148-96-3P 338447-26-0P 338447-28-2P
 338447-29-3P 338447-30-6P 338447-31-7P 338447-32-8P 338447-33-9P
 338447-34-0P 338447-35-1P 338447-36-2P 338447-37-3P 338447-38-4P
 338447-39-5P 338447-40-8P 338447-41-9P 338447-42-0P 338447-43-1P
 338447-44-2P 338447-45-3P 338447-46-4P 338447-48-6P 338447-49-7P
 338447-50-0P 338447-51-1P 338447-52-2P 338447-53-3P 338447-54-4P
 338447-55-5P 338447-56-6P 338447-57-7P 338447-59-9P 338447-60-2P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT 93-35-6, 7-Hydroxycoumarin 96-23-1, 1,3-Dichloro-2-propanol 99-33-2,
 3,5-Dinitrobenzoyl chloride 102-92-1, Cinnamic acid chloride 106-95-6,
 Allyl bromide, reactions 106-96-7, Propargyl bromide 121-90-4
 122-04-3, p-Nitrobenzoyl chloride 490-79-9, 2,5-Dihydroxybenzoic acid
 540-51-2, 2-Bromoethanol 644-78-0, 2-Hydroxychalcone 3296-90-0,
 2,2-Bis(bromomethyl)-1,3-propanediol 3867-55-8, Trimellitic chloride
 15486-96-1 35418-05-4 71022-43-0, 3,5-Dinitrobenzyl alcohol
 120434-47-1 321149-01-3 338447-27-1 338447-47-5 338447-58-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- IT 338447-82-8P
 RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
 (novel diamine, novel acid dianhydride, and novel polyimide composition with photoreactivity and thermal reactivity)
- RN 338447-82-8 HCAPLUS

CN 5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo-,
5-[[3-oxo-3-[(2-oxo-2H-1-benzopyran-7-yl)oxy]propoxy]carbonyl]-1,6-
naphthalenediyl ester, polymer with 3,3'-[sulfonylbis(4,1-
phenyleneoxy)]bis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 338447-60-2

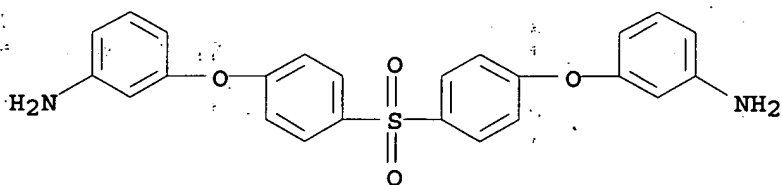
CMF C41 H20 O16



CM 2

CRN 30203-11-3

CMF C24 H20 N2 O4 S



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:241771 HCAPLUS
DN 134:266728
TI TADDOL and titanium (IV) TADDOLate dendrimers and their use as catalysts
IN Seebach, Dieter
PA Novartis A.G., Switz.
SO U.S., 5 pp.
CODEN: USXXAM
DT Patent
LA English

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6211316	B1	20010403	US 1997-959390	19971028
	US 6441112	B1	20020827	US 2000-692993	20001020
PRAI	US 1997-959390	A3	19971028		
AB	The title dendrimers comprise a member selected from the group consisting of an $\alpha,\alpha,\alpha',\alpha'$ -tetraaryl-1,3-dioxolane-4,5-dimethanol moiety and an $\alpha,\alpha,\alpha',\alpha'$ -tetraaryl-1,3-dioxolane-4,5-dimethanolate of titanium (IV) moiety, the moiety comprising a dendritic substituent, wherein the dendritic substituent is bound to an α or an α' aryl group. Their use as crosslinkers in polymerization reactions and the use of Ti salts of polymer-bound TADDOL dendrimers as catalysts in enantioselective addition reactions are disclosed. A copolymer of styrene and (4R,5R)-2,2-dimethyl-a,a,a',a'-tetra(4-(3,5-di(4-vinylbenzyloxy)benzyloxy)phenyl)-1,3-dioxolane-4,5-dimethanol was reacted with titanium tetraisopropoxide to give a catalyst useful in reaction of diethylzinc and benzaldehyde.				
IC	ICM C08F134-02				
	ICS C08F283-00				
NCL	526266000				
CC	35-5 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 67				
ST	TADDOL dendrimer copolymer addn reaction catalyst				
IT	Dendritic polymers RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses) (copolymers; TADDOL and titanium (IV) TADDOLate dendrimers and their use as catalysts)				
IT	Addition reaction catalysts (stereoselective; TADDOL and titanium (IV) TADDOLate dendrimers and their use as catalysts)				
IT	546-68-9DP, Titanium tetraisopropoxide, reaction products with TADDOL dendrimer copolymers 199277-58-2DP, reaction products with titanium tetraisopropoxide RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses) (TADDOL and titanium (IV) TADDOLate dendrimers and their use as catalysts)				
IT	100-52-7DP, Benzaldehyde, reaction products with Diethylzinc, preparation 557-20-0DP, Diethylzinc, reaction products with benzaldehyde RL: IMF (Industrial manufacture); PREP (Preparation) (TADDOL and titanium (IV) TADDOLate dendrimers and their use as catalysts)				
IT	199277-46-8P 199277-51-5P 199277-57-1P 199277-76-4P 199277-79-7P 304014-53-7P 312767-17-2P 332079-89-7DP, derivs. RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (TADDOL and titanium (IV) TADDOLate dendrimers and their use as catalysts)				
IT	99-10-5 106-41-2, p-Bromophenol 1592-20-7, 4-Vinylbenzyl chloride 29654-55-5, 3,5-Dihydroxybenzyl alcohol 59779-75-8 RL: RCT (Reactant); RACT (Reactant or reagent) (TADDOL and titanium (IV) TADDOLate dendrimers and their use as catalysts)				
IT	199277-58-2DP, reaction products with titanium tetraisopropoxide RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses) (TADDOL and titanium (IV) TADDOLate dendrimers and their use as catalysts)				

RN 199277-58-2 HCAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, $\alpha,\alpha,\alpha',\alpha'$ -tetrakis[4-
[[3,5-bis[(4-ethenylphenyl)methoxy]phenyl]methoxy]phenyl]-2,2-dimethyl-,
(4R,5R)-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

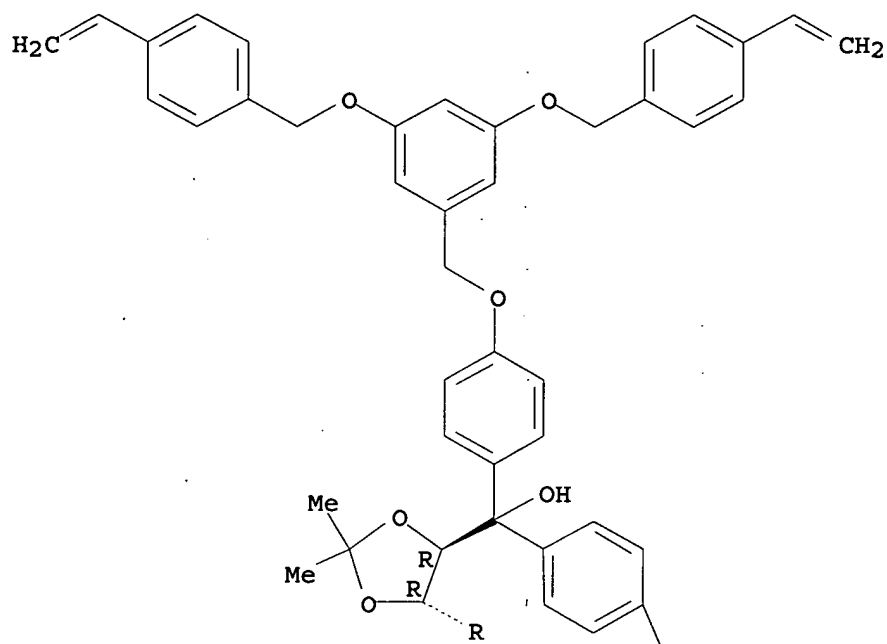
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CRN 199277-57-1

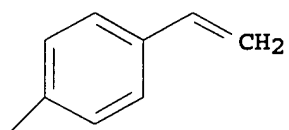
CMF C131 H118 O16

Absolute stereochemistry. Rotation (-).

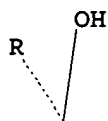
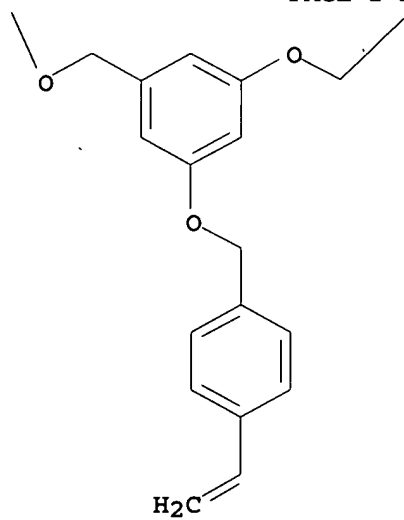
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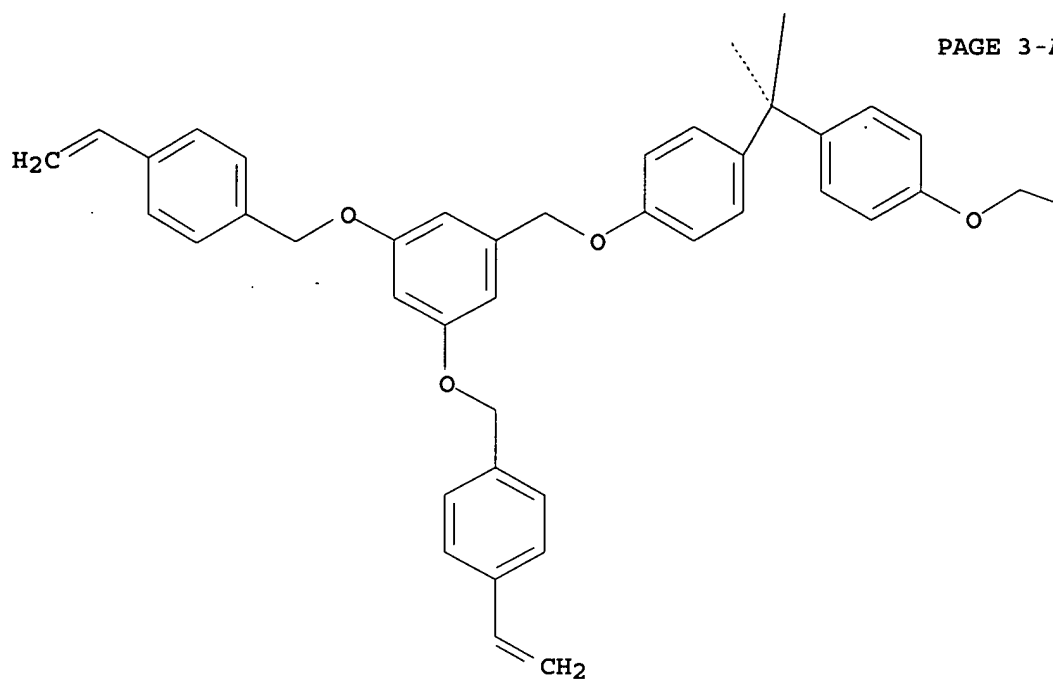
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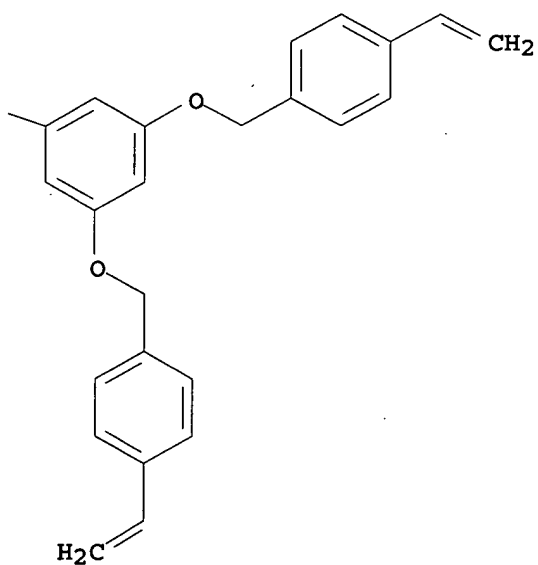
PAGE 2-A



PAGE 3-A



PAGE 3-B



CM 2

CRN 100-42-5
CMF C8 H8



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:221066 HCAPLUS
DN 135:20023
TI Synthesis and properties of stretchable polyetherimides for alignment
layers in liquid crystal displays
AU Wang, Huabin; Cheng, Stephen Z. D.; Harris, Frank W.
CS Teknor Apex Company, Pawtucket, RI, 02861, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer
Chemistry) (2001), 42(1), 568-569
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal; (computer optical disk)
LA English
AB The objective of this research was to investigate the effect of
introducing multiple alkyl side chains on the properties of aromatic
polyetherimides. Especially those polymers have excellent elongation and can be
used as stretchable films in applications of liquid crystal display (LCD)
alignment layers. Polyetherimides are prepared from 2,2'-bis[4-(3,4-
dicarboxyphenoxy)phenyl]propane dianhydride with 3,4,5-tris(n-alkyl-1-
oxy)benzyl diaminobenzoate or benzidine 3,4,5-tris(n-alkyl-1-oxy)benzoate.
3,5-dinitrobenzoic acid.
CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 75
ST polyetherimide stretchable liq crystal display prepn
IT Polyimides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, polyetherimides; preparation and properties of stretchable
polyetherimides for alignment layers in liquid crystal displays)
IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyimide-, polyetherimides; preparation and properties of stretchable
polyetherimides for alignment layers in liquid crystal displays)
IT Elongation, mechanical
Glass transition temperature
Liquid crystals, polymeric
Solubility
Viscosity
(preparation and properties of stretchable polyetherimides for alignment
layers in liquid crystal displays)
IT 61128-24-3, Ultem 1000
RL: PRP (Properties)
(for comparison; preparation and properties of stretchable polyetherimides
for alignment layers in liquid crystal displays)
IT 102898-72-6P 123126-39-6P, Methyl 3,4,5-tris-(dodecyloxy) benzoate
138433-00-8P 219562-13-7P 342886-36-6P 342886-37-7P 342886-38-8P
342886-39-9P 342886-40-2P 342886-41-3P 342886-42-4P 342886-43-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(in preparation and properties of stretchable polyetherimides for alignment
layers in liquid crystal displays)
IT 342886-59-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liquid crystal; preparation and properties of stretchable polyetherimides
for

alignment layers in liquid crystal displays)

IT 342886-44-6P 342886-45-7P 342886-47-9P 342886-48-0P 342886-49-1P

342886-50-4P 342886-51-5P 342886-52-6P

342886-53-7P 342886-54-8P 342886-55-9P

342886-56-0P 342886-57-1P 342886-58-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liquid crystal; synthesis and properties of stretchable polyetherimides
for alignment layers in liquid crystal displays)

IT 342886-46-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and properties of stretchable polyetherimides for alignment
layers in liquid crystal displays)

IT 342886-59-3P

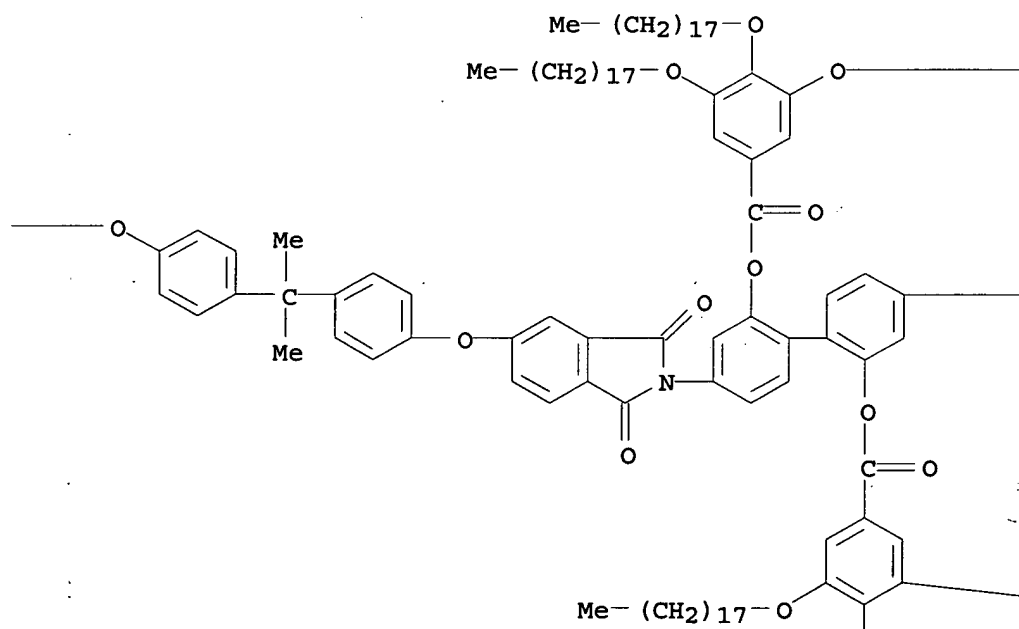
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liquid crystal; preparation and properties of stretchable polyetherimides)

alignment layers in liquid crystal displays)

RN 342886-59-3 HCAPLUS

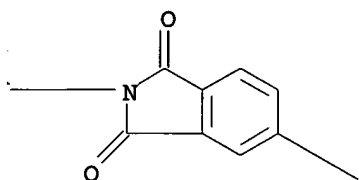
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl) [2,2'-bis[[3,4,5-tris(octadecyloxy)benzoyl]oxy] [1,1'-biphenyl]-4,4'-diyl] (1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene (1-methylethylidene)-1,4-phenyleneoxy] (9CI) (CA INDEX NAME)

PAGE 1-A



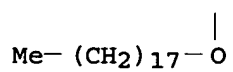
PAGE 1-B

— (CH₂)₁₇—Me



O— (CH₂)₁₇—Me

PAGE 2-A



PAGE 2-B

n

IT 342886-50-4P 342886-51-5P 342886-52-6P
342886-53-7P 342886-54-8P 342886-55-9P
342886-56-0P 342886-57-1P 342886-58-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(liquid crystal; synthesis and properties of stretchable polyetherimides
for alignment layers in liquid crystal displays)

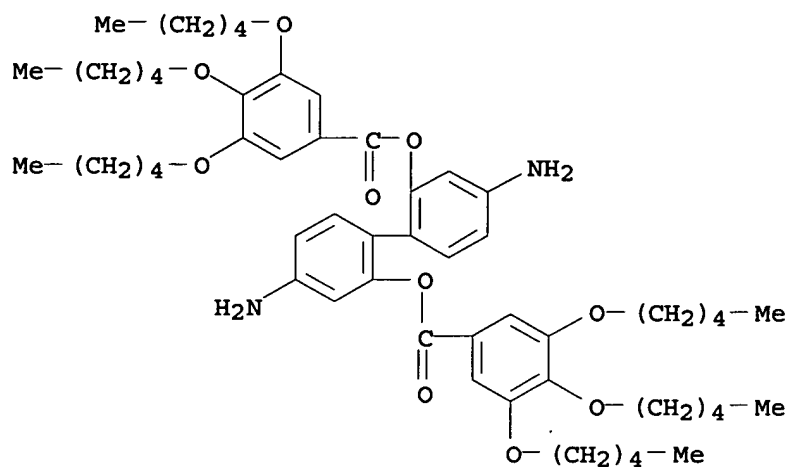
RN 342886-50-4 HCAPLUS

CN Benzoic acid, 3,4,5-tris(pentyloxy)-, 4,4'-diamino[1,1'-biphenyl]-2,2'-
diyl ester, polymer with 5,5'-[(1-methylethylidene)bis(4,1-
phenyleneoxy)]bis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

CRN 260546-10-9

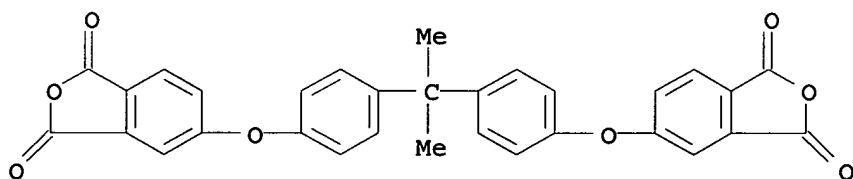
CMF C56 H80 N2 O10



CM 2

CRN 38103-06-9

CMF C31 H20 O8



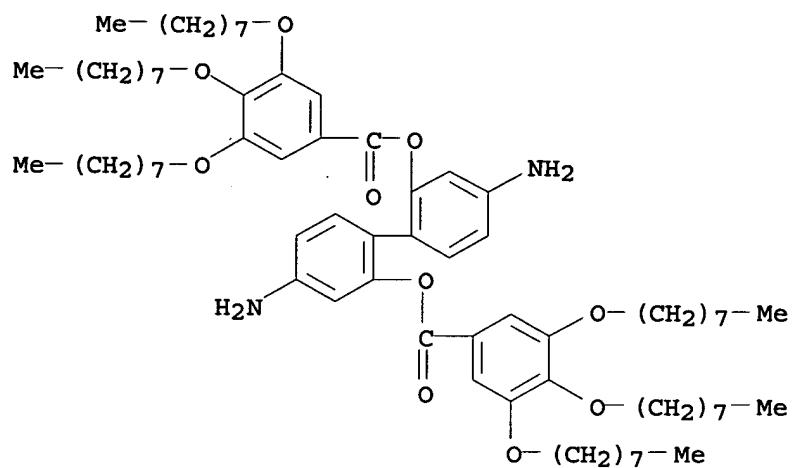
RN 342886-51-5 HCAPLUS

CN Benzoic acid, 3,4,5-tris(octyloxy)-, 4,4'-diamino[1,1'-biphenyl]-2,2'-diyl ester, polymer with 5,5'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

CRN 260546-13-2

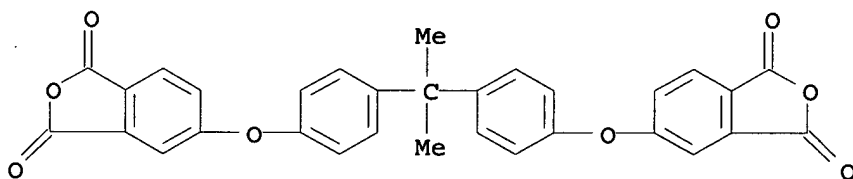
CMF C74 H116 N2 O10



CM 2

CRN 38103-06-9

CMF C31 H20 O8



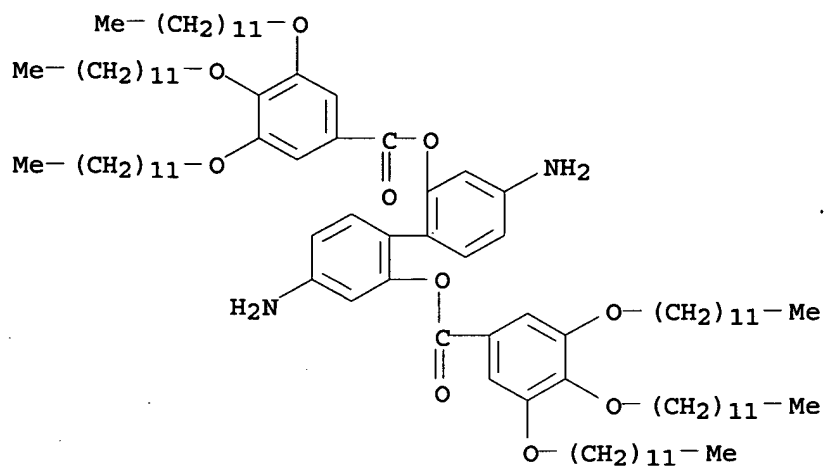
RN 342886-52-6 HCAPLUS

CN Benzoic acid, 3,4,5-tris(dodecyloxy)-, 4,4'-diamino[1,1'-biphenyl]-2,2'-diyl ester, polymer with 5,5'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

CRN 260546-19-8

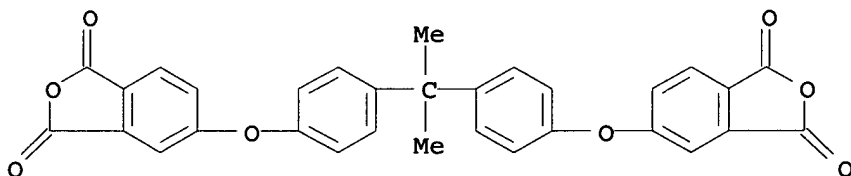
CMF C98 H164 N2 O10



CM 2

CRN 38103-06-9

CMF C31 H20 O8



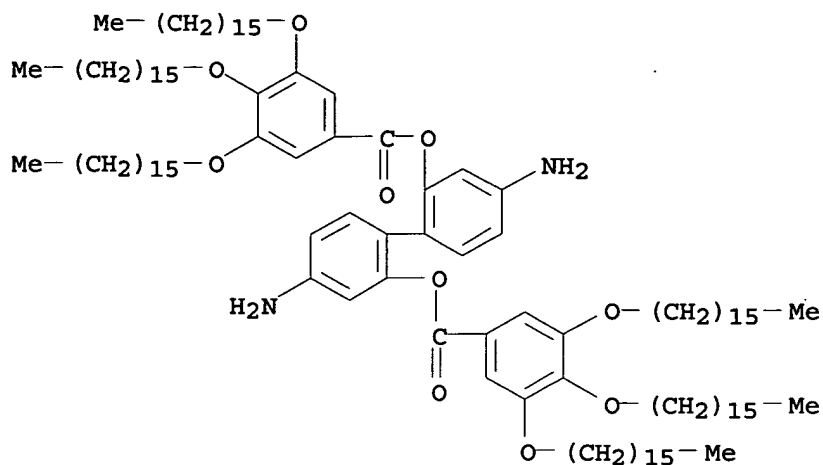
RN 342886-53-7 HCAPLUS

CN Benzoic acid, 3,4,5-tris(hexadecyloxy)-, 4,4'-diamino[1,1'-biphenyl]-2,2'-diyl ester, polymer with 5,5'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

CRN 260546-25-6

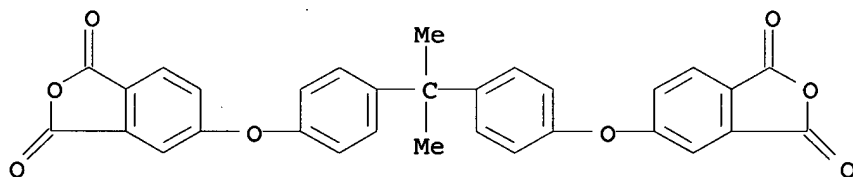
CMF C122 H212 N2 O10



CM 2

CRN 38103-06-9

CMF C31 H20 O8



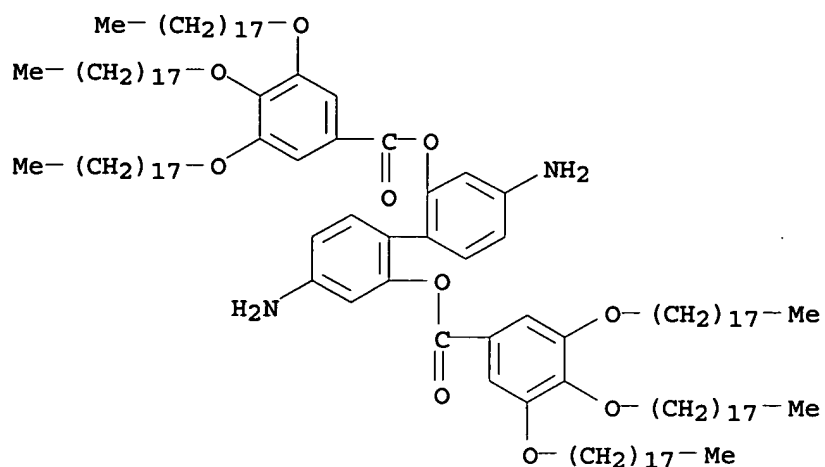
RN 342886-54-8 HCAPLUS

CN Benzoic acid, 3,4,5-tris(octadecyloxy)-, 4,4'-diamino[1,1'-biphenyl]-2,2'-diyl ester, polymer with 5,5'-[(1-methylethylidene)bis(4,1-phenyleneoxy)]bis[1,3-isobenzofurandione] (9CI) (CA INDEX NAME)

CM 1

CRN 260546-28-9

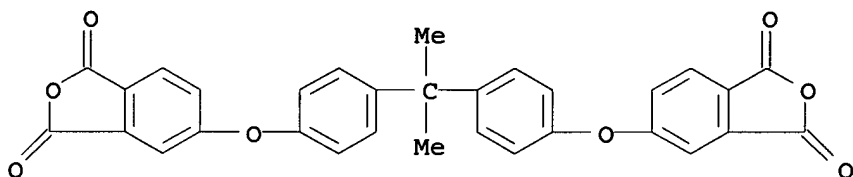
CMF C134 H236 N2 O10



CM 2

CRN 38103-06-9

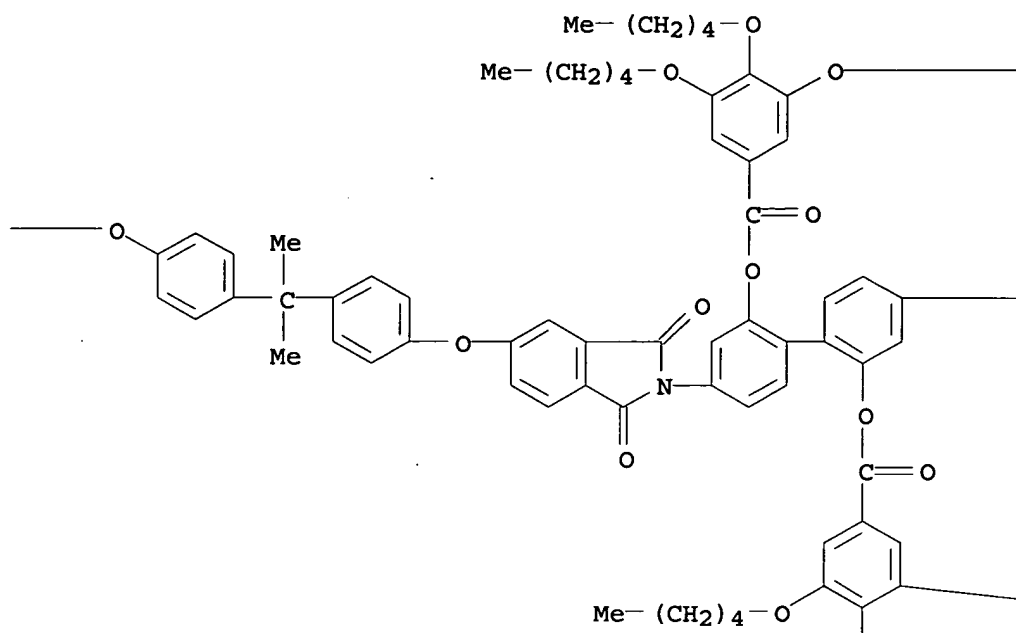
CMF C31 H20 O8



RN 342886-55-9 HCAPLUS

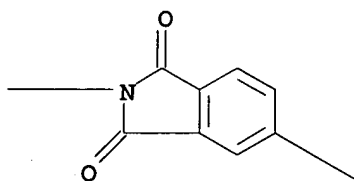
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl) [2,2'-bis[[3,4,5-tris(pentyloxy)benzoyl]oxy] [1,1'-biphenyl]-4,4'-diyl] (1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy] (9CI) (CA INDEX NAME)

PAGE 1-A



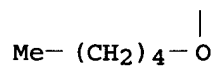
PAGE 1-B

— (CH₂)₄ — Me



O — (CH₂)₄ — Me

PAGE 2-A



PAGE 2-B

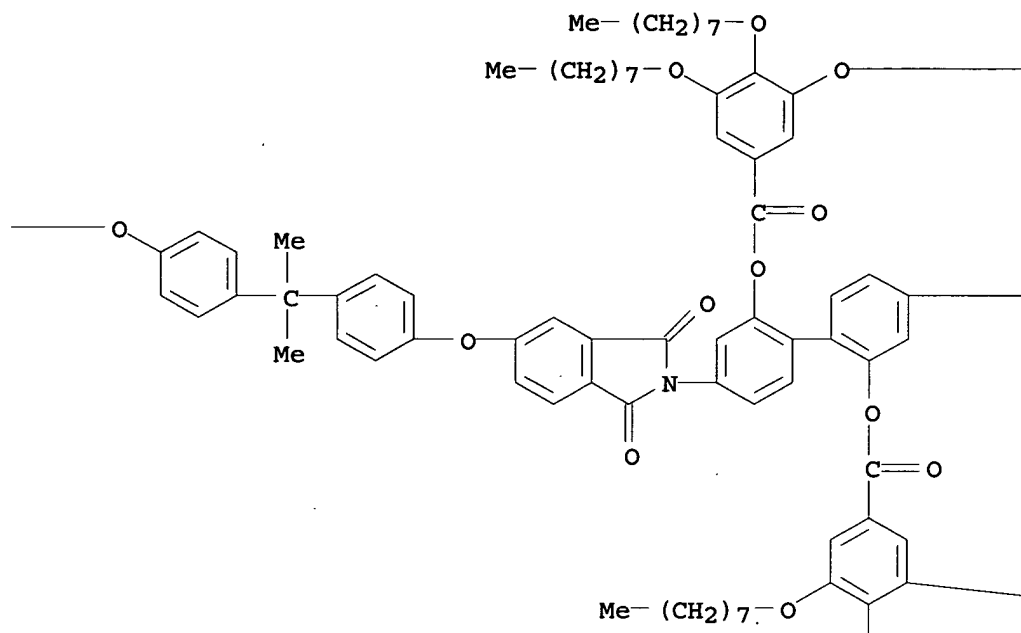
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RN 342886-56-0 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

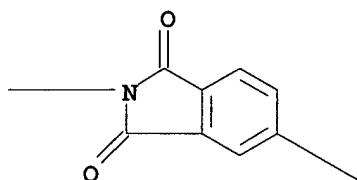
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis[[3,4,5-tris(octyloxy)benzoyl]oxy][1,1'-biphenyl]-4,4'-diyl](1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH₂)₇—Me



O— (CH₂)₇—Me

PAGE 2-A

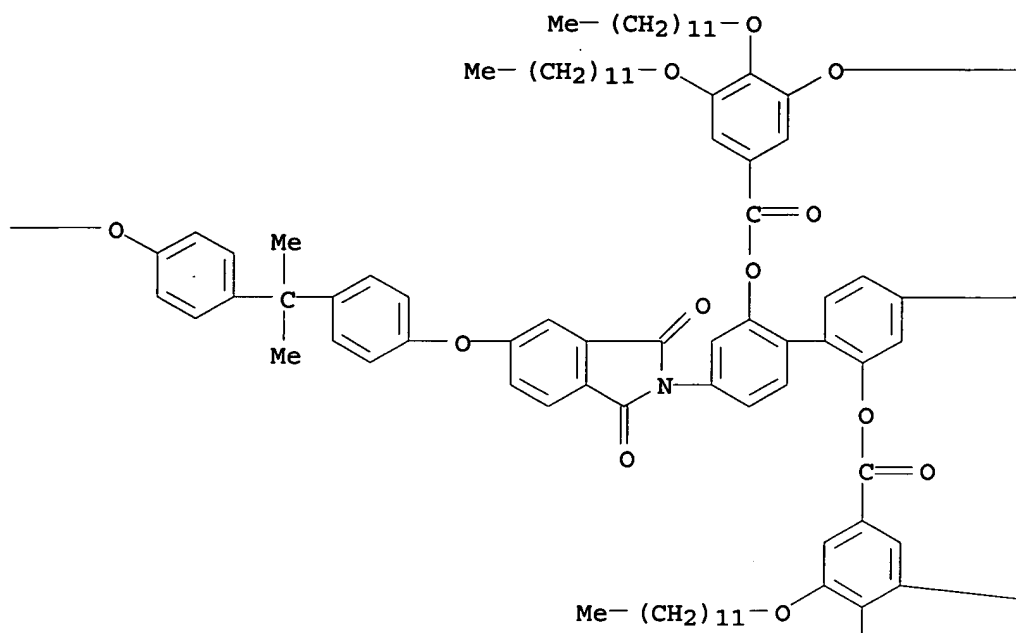
Me— (CH₂)₇—O

PAGE 2-B

n

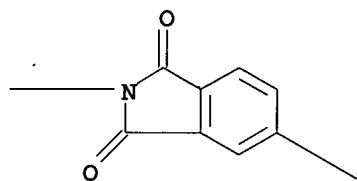
RN 342886-57-1 HCAPLUS
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)[2,2'-bis[[3,4,5-tris(dodecyloxy)benzoyl]oxy][1,1'-biphenyl]-4,4'-diyl](1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy] (9CI) (CA INDEX NAME)

PAGE 1-A



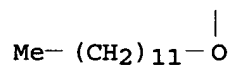
PAGE 1-B

$-(\text{CH}_2)_{11}-\text{Me}$



$\text{O}-(\text{CH}_2)_{11}-\text{Me}$

PAGE 2-A



PAGE 2-B

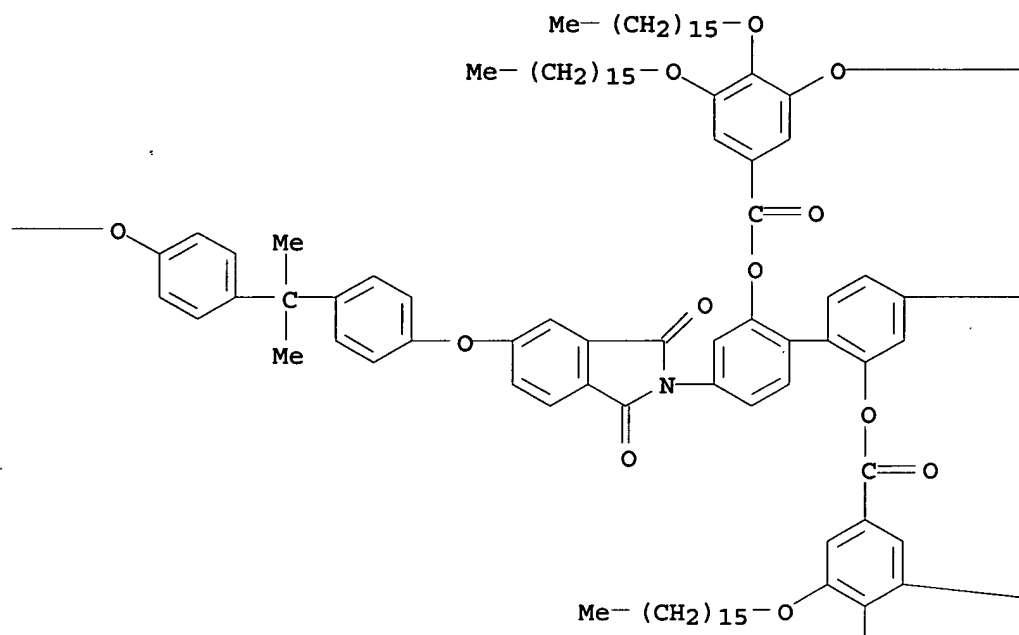
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RN 342886-58-2 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

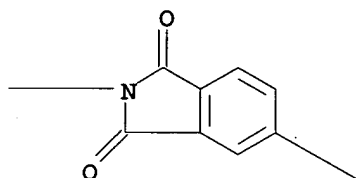
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl) [2,2'-bis[[3,4,5-tris(hexadecyloxy)benzoyl]oxy] [1,1'-biphenyl]-4,4'-diyl] (1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)oxy-1,4-phenylene (1-methylethylidene)-1,4-phenyleneoxy] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH₂)₁₅—Me



O— (CH₂)₁₅—Me

PAGE 2-A

Me— (CH₂)₁₅—O

PAGE 2-B

n

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L32 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:470215 HCAPLUS
DN 131:257465
TI Dendritically cross-linking chiral ligands: high stability of a
polystyrene-bound Ti-TADDOLate catalyst with diffusion control
AU Sellner, Holger; Seebach, Dieter
CS Laboratorium fur Organische Chemie der Eidgenossischen Technischen
Hochschule Zurich ETH Zentrum, Zurich, CH-8092, Switz.
SO Angewandte Chemie, International Edition (1999), 38(13/14), 1918-1920
CODEN: ACIEF5; ISSN: 1433-7851
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
OS CASREACT 131:257465
AB TADDOL was modified with styryl group-containing dendrimer and aryl ether
linkers and copolymerized with styrene to give a copolymer that was complexed
with Ti. The complex was used to catalyze the stereoselective ethylation
of PhCHO. All the catalysts showed high selectivity initially, but only
the dendrimer-modified TADDOLate retained its selectivity through repeated
catalysis cycles.
CC 28-5 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 25
ST TADDOLate dendrimer copolymer prepn stereoselective alkylation catalyst
IT Alkylation catalysts
(stereoselective; preparation of dendrimer-modified TADDOL copolymer as
stereoselective alkylation catalyst)
IT 7440-32-6D, Titanium, polymeric TADDOLate complexes, uses
RL: CAT (Catalyst use); USES (Uses)
(preparation of dendrimer-modified TADDOL copolymer as stereoselective

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

alkylation catalyst)

IT 199277-58-2DP, titanium complexes 244306-56-7DP, titanium complexes 244306-57-8DP, titanium complexes 244306-58-9DP, titanium complexes 244764-86-1P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of dendrimer-modified TADDOL copolymer as stereoselective alkylation catalyst)

IT 100-52-7, Benzaldehyde, reactions 199277-57-1 244306-51-2 244306-53-4 244306-55-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of dendrimer-modified TADDOL copolymer as stereoselective alkylation catalyst)

IT 199277-58-2P 244306-56-7P 244306-57-8DP, titanium complexes 244306-58-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of dendrimer-modified TADDOL copolymer as stereoselective alkylation catalyst)

IT 93-54-9P, (S)-1-Phenylethanol
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of dendrimer-modified TADDOL copolymer as stereoselective alkylation catalyst)

IT 199277-58-2DP, titanium complexes
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (preparation of dendrimer-modified TADDOL copolymer as stereoselective alkylation catalyst)

RN 199277-58-2 HCAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, $\alpha,\alpha,\alpha',\alpha'$ -tetrakis[4-[[3,5-bis[(4-ethenylphenyl)methoxy]phenyl]methoxy]phenyl]-2,2-dimethyl-, (4R,5R)-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

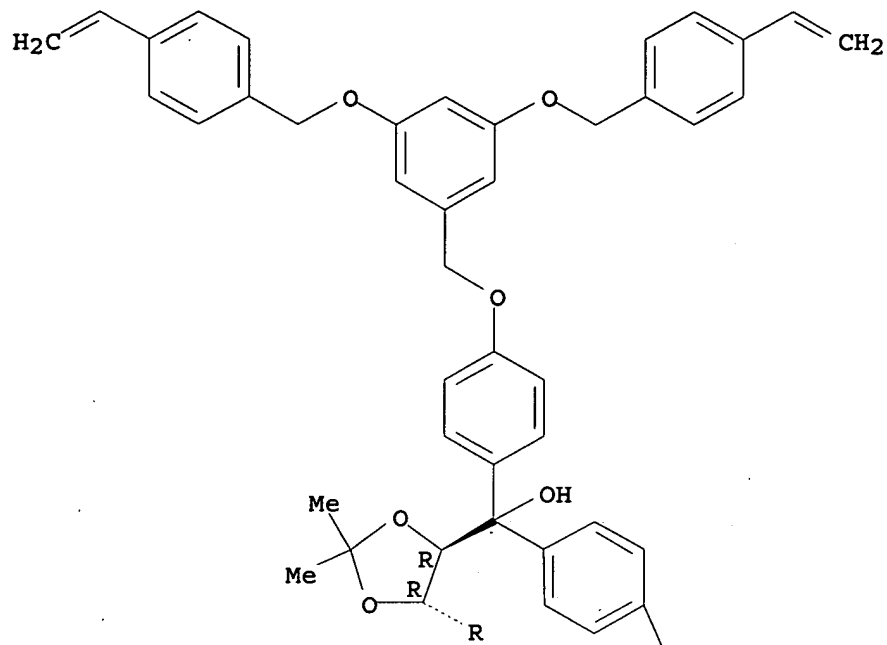
CM 1

CRN 199277-57-1

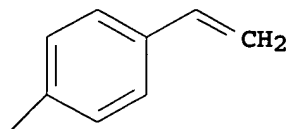
CMF C131 H118 O16

Absolute stereochemistry. Rotation (-).

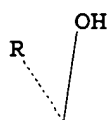
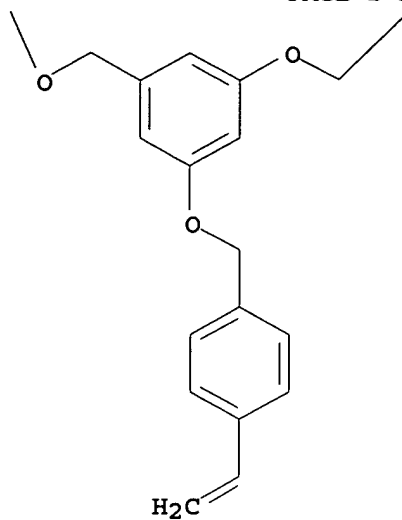
PAGE 1-A



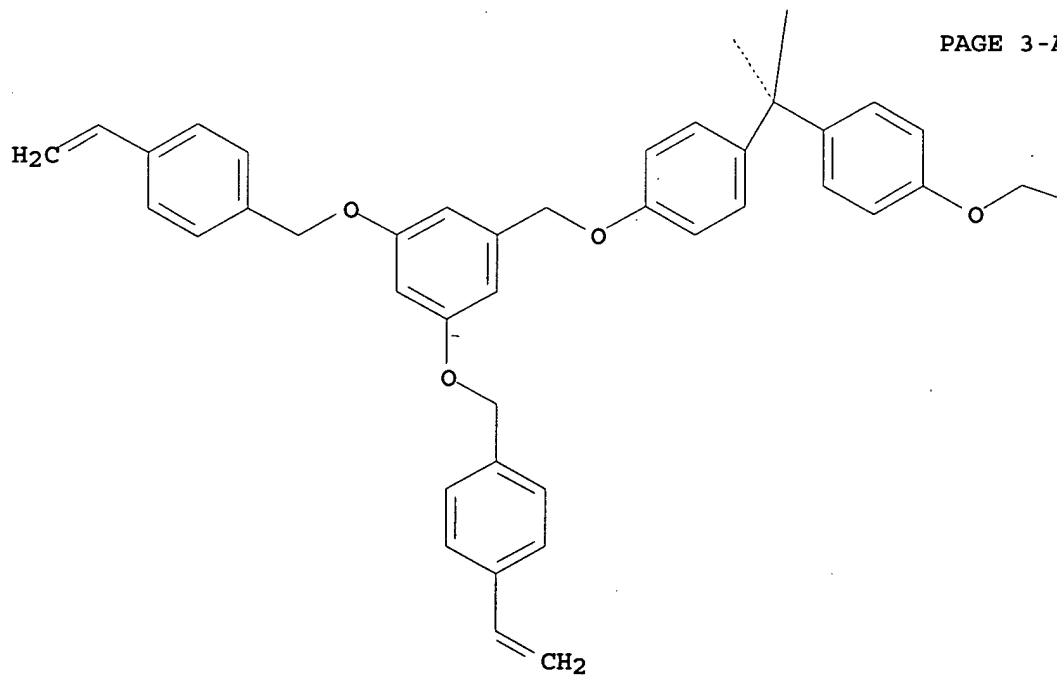
PAGE 1-B



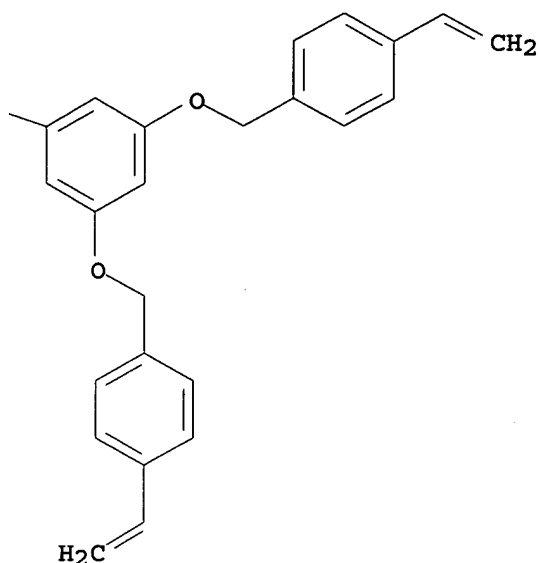
PAGE 2-A



PAGE 3-A



PAGE 3-B



CM 2

CRN 100-42-5

CMF C8 H8

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

IT 199277-58-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of dendrimer-modified TADDOL copolymer as stereoselective alkylation catalyst)

RN 199277-58-2 HCAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, $\alpha,\alpha,\alpha',\alpha'$ -tetrakis[4-[[3,5-bis[(4-ethenylphenyl)methoxy]phenyl]methoxy]phenyl]-2,2-dimethyl-, (4R,5R)-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

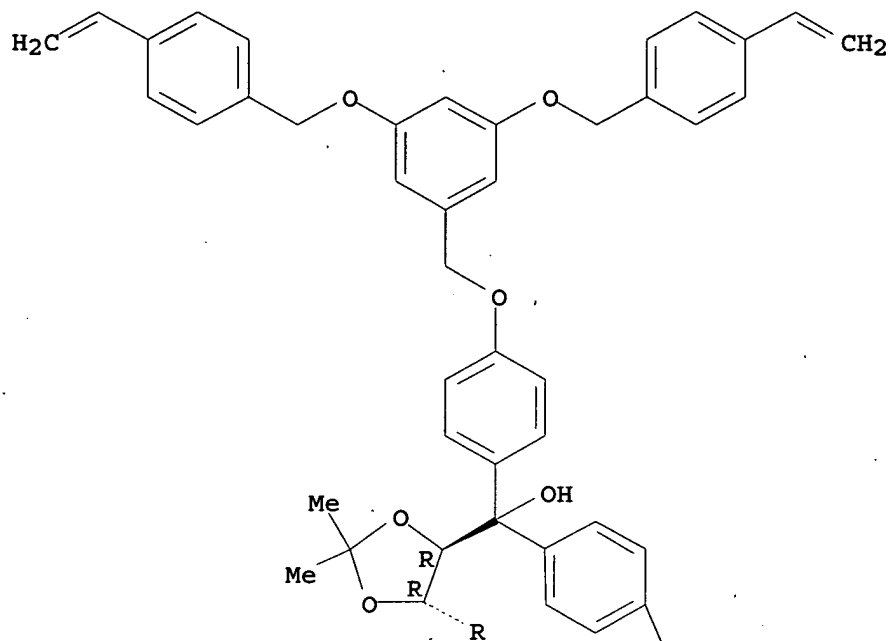
CM 1

CRN 199277-57-1

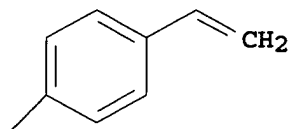
CMF C131 H118 O16

Absolute stereochemistry. Rotation (-).

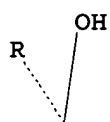
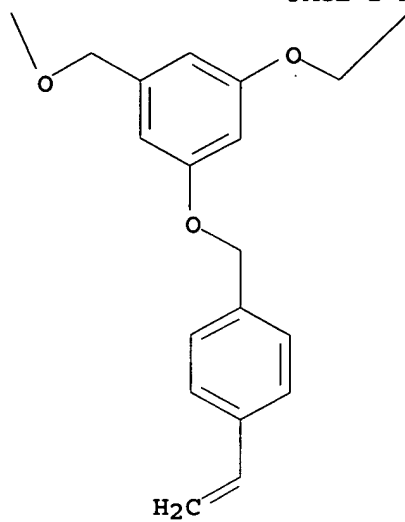
PAGE 1-A



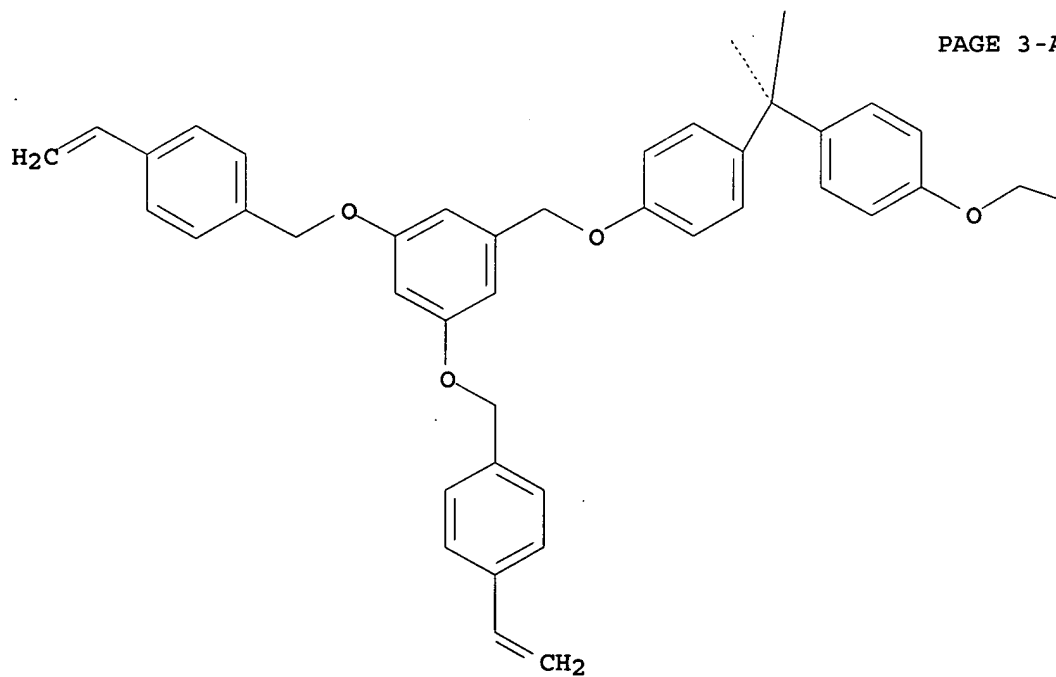
PAGE 1-B



PAGE 2-A



PAGE 3-A



- have a much higher catalytic activity, rather close to that of soluble analogs.
- CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 35, 45, 67
- ST styryl terminated TADDOL crosslinker polystyrene prep; addn catalyst
dendritic crosslinked polystyrene titanate
- IT Polyethers, preparation
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)
(dendritic; preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and use of copolymer titanate in enantioselective addition reaction)
- IT Addition reaction catalysts
Addition reaction kinetics
(enantioselective; preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and use of copolymer titanate in enantioselective addition reaction)
- IT Crosslinking agents
(preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and use of copolymer titanate in enantioselective addition reaction)
- IT Dendritic polymers
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
USES (Uses)
(preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and use of copolymer titanate in enantioselective addition reaction)
- IT 199277-57-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(crosslinker; preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and use of copolymer titanate in enantioselective addition reaction)
- IT 129371-31-9P, 3,5-Dihydroxybenzyl alcohol homopolymer
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(dendritic, crosslinker; preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and use of copolymer titanate in enantioselective addition reaction)
- IT 100-42-5DP, Styrene, polymers with polyethers, iso-Pr titanate complexes
RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);
PREP (Preparation); USES (Uses)
(dendritic; preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and use of copolymer titanate in enantioselective addition reaction)
- IT 114026-73-2 199277-68-4
RL: CAT (Catalyst use); USES (Uses)
(preparation and properties of titanate-containing dendritic TADDOL-crosslinked polystyrene in enantioselective addition reaction)
- IT 100-52-7, Benzaldehyde, properties 557-20-0, Diethylzinc
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(preparation and properties of titanate-containing dendritic TADDOL-crosslinked polystyrene in enantioselective addition reaction)
- IT 613-87-6, (S)-(α-Hydroxypropyl)benzene 1565-74-8,
(R)-(α-Hydroxypropyl)benzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and properties of titanate-containing dendritic TADDOL-crosslinked polystyrene in enantioselective addition reaction)

IT 199277-58-2DP, iso-Pr titanate complexes
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);
 PREP (Preparation); USES (Uses)
 (preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and
 use of copolymer titanate in enantioselective addition reaction)

IT 7440-32-6DP, Titanium, complex with TADDOL-crosslinked polystyrene,
 preparation
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and
 use of copolymer titanate in enantioselective addition reaction)

IT 59779-75-8 107539-52-6 199277-76-4 199277-79-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and
 use of copolymer titanate in enantioselective addition reaction)

IT 199277-46-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and
 use of copolymer titanate in enantioselective addition reaction)

IT 199277-51-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and
 use of copolymer titanate in enantioselective addition reaction)

IT 199277-58-2DP, iso-Pr titanate complexes
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);
 PREP (Preparation); USES (Uses)
 (preparation of dendritic styryl TADDOLs as crosslinker for polystyrene and
 use of copolymer titanate in enantioselective addition reaction)

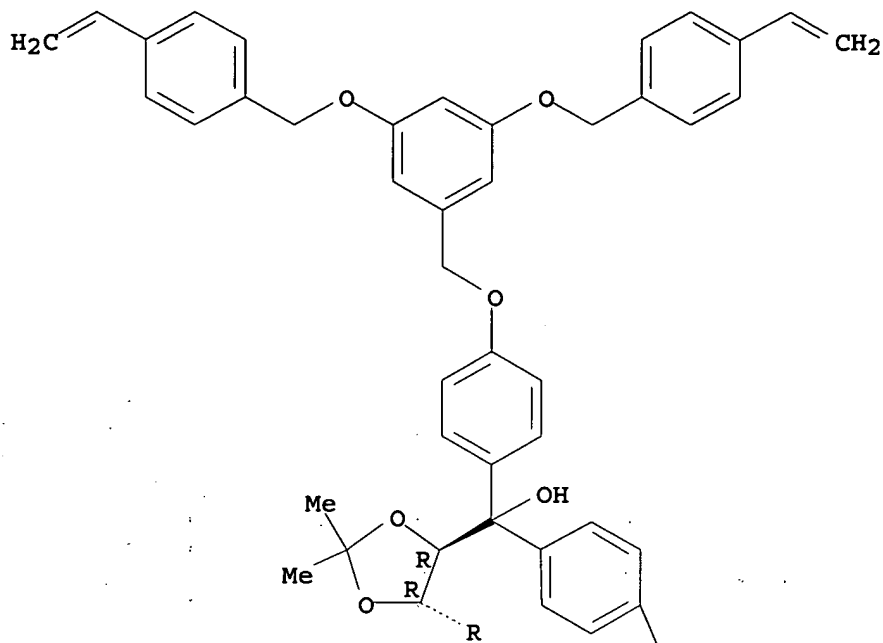
RN 199277-58-2 HCAPLUS
 CN 1,3-Dioxolane-4,5-dimethanol, $\alpha,\alpha,\alpha',\alpha'$ -tetrakis[4-
 [[3,5-bis[(4-ethenylphenyl)methoxy]phenyl]methoxy]phenyl]-2,2-dimethyl-,
 (4R,5R)-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

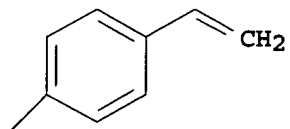
CRN 199277-57-1
 CMF C131 H118 O16

Absolute stereochemistry. Rotation (-).

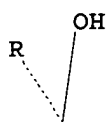
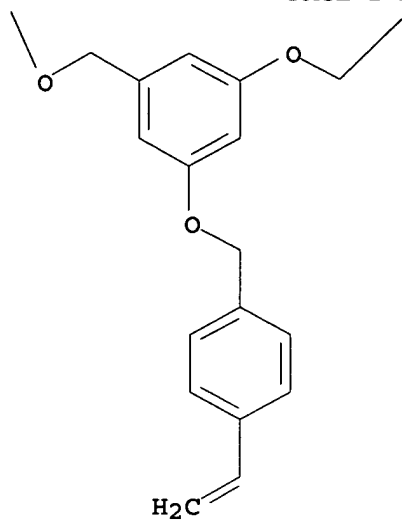
PAGE 1-A



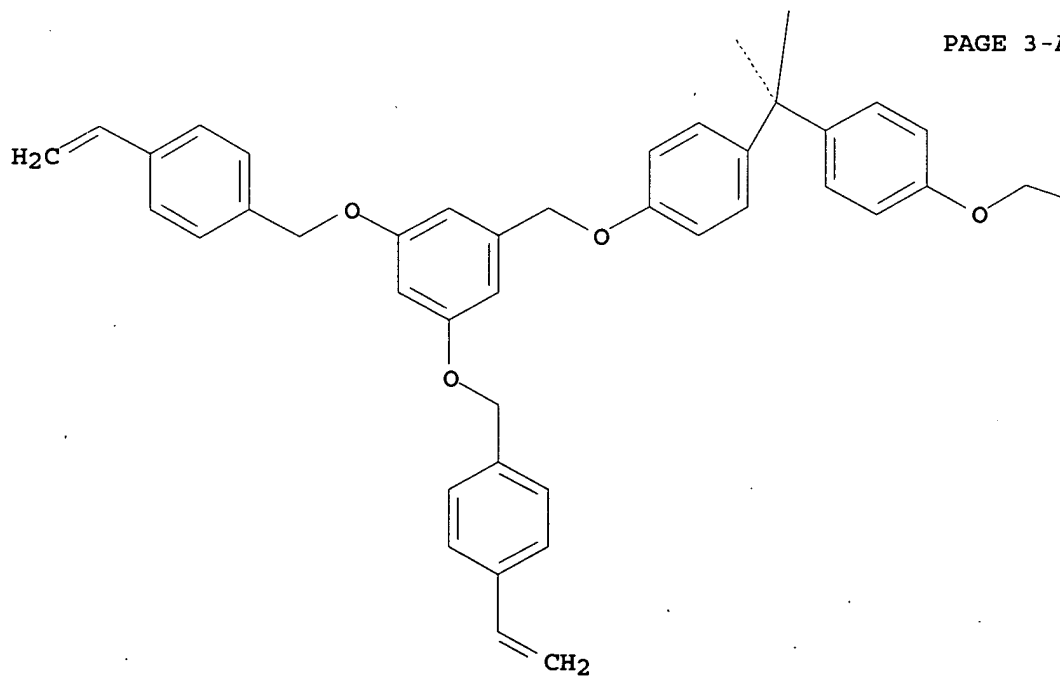
PAGE 1-B



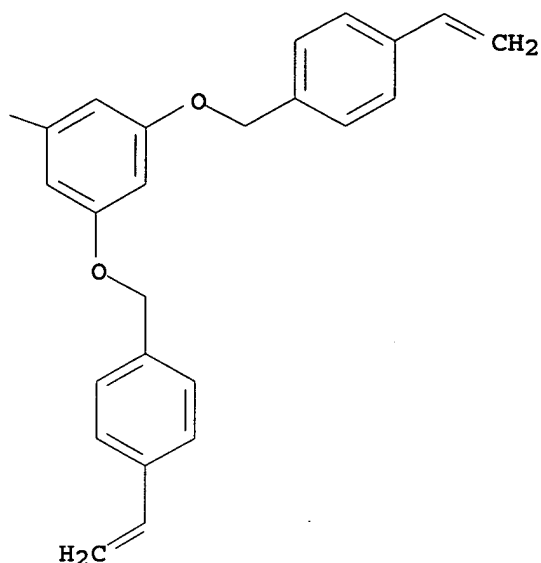
PAGE 2-A



PAGE 3-A



PAGE 3-B



CM 2

CRN 100-42-5

CMF C8 H8

$\text{H}_2\text{C}=\text{CH}-\text{Ph}$

L32 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1996:257386 HCAPLUS
 DN 124:318058
 TI Synthesis of polyesters containing 9,10-diacetoxyanthracene-2,6-diyl moieties via a precursor polymer approach
 AU Uddin, Ruab; Hodge, Philip; Chisholm, Michael S.; Eustace, Paul
 CS Chem. Dep., Univ. Manchester, Manchester, M12 9PL, UK
 SO Journal of Materials Chemistry (1996), 6(4), 527-32
 CODEN: JMACEP; ISSN: 0959-9428
 PB Royal Society of Chemistry
 DT Journal
 LA English
 AB Soluble polyesters are synthesized by polymerizing a range of bis(acid chloride)s with the bisphenol that is formally the Diels-Alder adduct of 9,10-diacetoxy-2,6-dihydroxyanthracene and di-Me maleate. Heating the soluble polyesters to about 230° brought about retro-Diels-Alder reactions to give the insol. target polyesters containing 9,10-diacetoxyanthracene residues.
 CC 35-5 (Chemistry of Synthetic High Polymers)
 ST acetoxyanthracene contg polyester prepn precursor; retro Diels Alder polyester prepn
 IT Polyesters, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

- (synthesis of polyesters containing 9,10-diacetoxanthracene-2,6-diyl moieties via precursor and retro-Diels-Alder reaction)
- IT Polyethers, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (polyester-, synthesis of polyesters containing 9,10-diacetoxanthracene-2,6-diyl moieties via precursor and retro-Diels-Alder reaction)
- IT Polyesters, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (polyether-, synthesis of polyesters containing 9,10-diacetoxanthracene-2,6-diyl moieties via precursor and retro-Diels-Alder reaction)
- IT Diels-Alder reaction
 (retro, synthesis of polyesters containing 9,10-diacetoxanthracene-2,6-diyl moieties via precursor and retro-Diels-Alder reaction)
- IT 108-31-6, 2,5-Furandione, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (Diels-Alder reaction of maleic anhydride with acetoxanthracene derivs.)
- IT 84-60-6, 2,6-Dihydroxyanthraquinone 84-65-1, Anthraquinone
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (acetylation and reduction of)
- IT 176391-74-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (monomer; synthesis of polyesters containing 9,10-diacetoxanthracene-2,6-diyl moieties via precursor and retro-Diels-Alder reaction)
- IT 176391-76-7P 176391-77-8P 176391-78-9P 176391-79-0P 176391-80-3P
 176391-81-4P 176391-82-5P 176391-83-6P 176391-84-7P 176391-85-8P
 176391-86-9P 176391-87-0P 176391-88-1P 176391-89-2P
 176391-90-5P 176391-91-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (precursor; synthesis of polyesters containing 9,10-diacetoxanthracene-2,6-diyl moieties via precursor and retro-Diels-Alder reaction)
- IT 604-66-0P, 9,10-Diacetoxanthracene 176391-92-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and Diels-Alder reaction of)
- IT 100735-65-7P 176391-72-3P 176391-75-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and esterification of)
- IT 176391-73-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
- IT 176391-76-7DP, retro-Diels-Alder product 176391-77-8DP, retro-Diels-Alder product 176391-78-9DP, retro-Diels-Alder product 176391-79-0DP, retro-Diels-Alder product 176391-80-3DP, retro-Diels-Alder product 176391-81-4DP, retro-Diels-Alder product 176391-82-5DP, retro-Diels-Alder product 176391-83-6DP, retro-Diels-Alder product 176391-84-7DP, retro-Diels-Alder product 176391-85-8DP, retro-Diels-Alder product 176391-86-9DP, retro-Diels-Alder product 176391-87-0DP, retro-Diels-Alder product 176391-88-1DP, retro-Diels-Alder product 176391-89-2DP, retro-Diels-Alder product 176391-90-5DP, retro-Diels-Alder product 176391-91-6DP, retro-Diels-Alder product
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis of polyesters containing 9,10-diacetoxanthracene-2,6-diyl moieties via precursor and retro-Diels-Alder reaction)
- IT 176391-86-9P 176391-87-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(precursor; synthesis of polyesters containing 9,10-diacetoxyanthracene-2,6-diyl moieties via precursor and retro-Diels-Alder reaction)

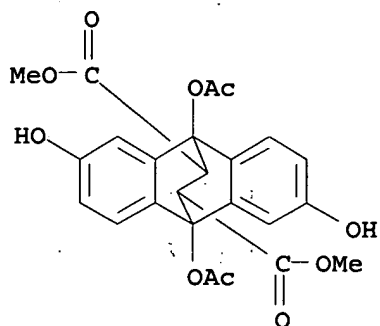
RN 176391-86-9 HCAPLUS

CN 9,10-Ethanoanthracene-11,12-dicarboxylic acid, 9,10-bis(acetyloxy)-9,10-dihydro-2,6-dihydroxy-, dimethyl ester, polymer with [1,1'-biphenyl]-4,4'-dicarbonyl dichloride (9CI) (CA INDEX NAME)

CM 1

CRN 176391-74-5

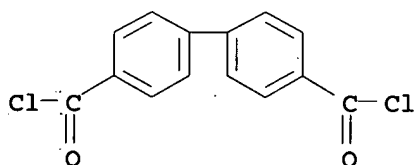
CMF C24 H22 O10



CM 2

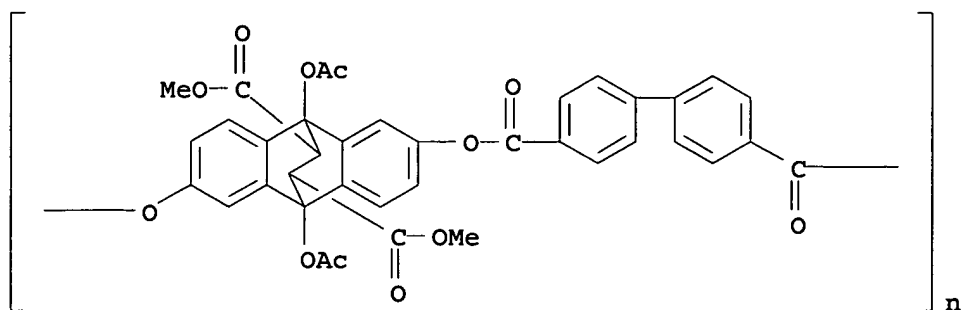
CRN 2351-37-3

CMF C14 H8 Cl2 O2

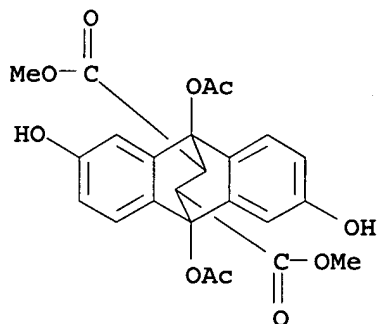


RN 176391-87-0 HCAPLUS

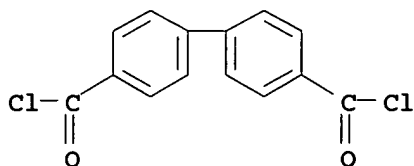
CN Poly[oxy[9,10-bis(acetyloxy)-9,10-dihydro-11,12-bis(methoxycarbonyl)-9,10-ethanoanthracene-2,6-diyl]oxycarbonyl[1,1'-biphenyl]-4,4'-diylcarbonyl] (9CI) (CA INDEX NAME)



IT 176391-86-9DP, retro-Diels-Alder product 176391-87-0DP,
retro-Diels-Alder product
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of polyesters containing 9,10-diacetoxanthracene-2,6-diyl
moieties via precursor and retro-Diels-Alder reaction)
RN 176391-86-9 HCAPLUS
CN 9,10-Ethanoanthracene-11,12-dicarboxylic acid, 9,10-bis(acetyloxy)-9,10-
dihydro-2,6-dihydroxy-, dimethyl ester, polymer with [1,1'-biphenyl]-4,4'-
dicarbonyl dichloride (9CI) (CA INDEX NAME)
CM 1
CRN 176391-74-5
CMF C24 H22 O10

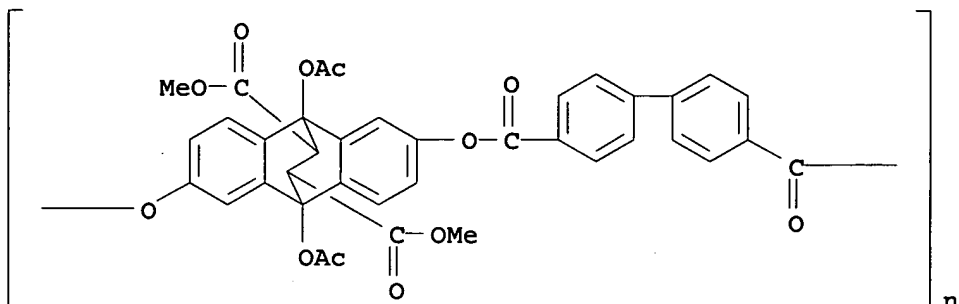


CM 2
CRN 2351-37-3
CMF C14 H8 Cl2 O2



RN 176391-87-0 HCAPLUS

CN Poly[oxy[9,10-bis(acetyloxy)-9,10-dihydro-11,12-bis(methoxycarbonyl)-9,10-ethanoanthracene-2,6-diyl]oxycarbonyl[1,1'-biphenyl]-4,4'-diylcarbonyl]
(9CI) (CA INDEX NAME)



L32 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:272673 HCAPLUS

DN 122:56696

TI Novel thermotropic liquid crystalline polymers: rigid and semi-rigid polymers with flexible side chains

AU Lee, Kwang-Sup; Lee, Won-Kyu; Lee, Soo-Min; Kim, Hea-Ok; Le, Byung-Woon

CS Dep. Macromol. Sci., Han Nam Univ., Taejon, 300-791, S. Korea

SO Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals (1994), 254, 37-48

CODEN: MCLCE9; ISSN: 1058-725X

PB Gordon & Breach

DT Journal

LA English

AB Two series of rigid and semi-rigid polyesters and polyamides with flexible side chains were prepared by solution, melt and interfacial polycondensation of 2,5-dialkoxyterephthaloyl chloride with various diols and diamines. The thermal behavior of the polymers were studied by DSC, TGA and polarizing microscopy. The results indicated that only rigid polymer systems form a nematic mesophase. However, none of the semi-rigid polymers formed nematic melts. The structures of both polyesters and polyamides were also examined by wide angle x-ray scattering. Anal. of sharp reflections, appearing at the lower angle of x-ray diffractograms of rigid polymers, suggested that rigid polymers crystallized to form a layered structure in the solid state.

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 75

ST liq cryst polymer prepn property; polyester liq cryst prepn property; polyamide liq cryst prepn property; thermal property liq cryst polymer; morphol liq cryst polymer

IT Liquid crystals, polymeric
(preparation, characterization and properties of rigid and semi-rigid thermotropic liquid crystalline polymers with flexible side chains)

IT Polyamides, preparation
Polyesters, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation, characterization and properties of rigid and semi-rigid thermotropic liquid crystalline polymers with flexible side chains)

IT Polymer morphology
(crystalline, properties of rigid and semi-rigid thermotropic liquid crystalline polymers with flexible side chains)

IT Polyethers, preparation
Polyoxyalkylenes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyamide-, preparation, characterization and properties of rigid and
semi-rigid thermotropic liquid crystalline polymers with flexible side
chains)

IT Polyketones
Polysulfones, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyester-, preparation, characterization and properties of rigid and
semi-rigid thermotropic liquid crystalline polymers with flexible side
chains)

IT Polyamides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, preparation, characterization and properties of rigid and
semi-rigid thermotropic liquid crystalline polymers with flexible side
chains)

IT Polyesters, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, preparation, characterization and properties of rigid and
semi-rigid thermotropic liquid crystalline polymers with flexible side
chains)

IT Polyamides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyoxyalkylene-, preparation, characterization and properties of rigid and
semi-rigid thermotropic liquid crystalline polymers with flexible side
chains)

IT Polyesters, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polysulfone-, preparation, characterization and properties of rigid and
semi-rigid thermotropic liquid crystalline polymers with flexible side
chains)

IT Polyesters, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polythioether-, preparation, characterization and properties of rigid and
semi-rigid thermotropic liquid crystalline polymers with flexible side
chains)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(thio-, polyester-, preparation, characterization and properties of rigid
and semi-rigid thermotropic liquid crystalline polymers with flexible side
chains)

IT Polyamides, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(thiophene group-containing, preparation, characterization and properties of
rigid and semi-rigid thermotropic liquid crystalline polymers with flexible
side chains)

IT 103728-27-4P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-hydroquinone
copolymer sru 103728-28-5P, 2,5-Bis(hexadecyloxy)terephthaloyl
chloride-hydroquinone copolymer sru 103761-98-4P, 2,5-
Bis(dodecyloxy)terephthaloyl chloride-hydroquinone copolymer
103762-00-1P, 2,5-Bis(hexadecyloxy)terephthaloyl chloride-hydroquinone
copolymer 107502-79-4P, 2,5-Bis(octyloxy)terephthalic acid-hydroquinone
copolymer 107503-00-4P, 2,5-Bis(octyloxy)terephthalic acid-hydroquinone
copolymer sru 122139-40-6P, 4,4'-Biphenyldiol-2,5-
bis(dodecyloxy)terephthaloyl chloride copolymer 122139-41-7P,
2,5-Bis(dodecyloxy)terephthaloyl chloride-1,5-naphthalenediol copolymer
122139-42-8P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-4,4'-
dihydroxybenzophenone copolymer 122139-43-9P, 2,5-
Bis(dodecyloxy)terephthaloyl chloride-4,4'-sulfonyldiphenol copolymer

122139-44-0P, 4,4'-Biphenyldiol-2,5-bis(hexadecyloxy)terephthaloyl chloride copolymer 122159-62-0P, 4,4'-Biphenyldiol-2,5-bis(octyloxy)terephthalic acid copolymer sru 122159-63-1P, 2,5-Bis(octyloxy)terephthalic acid-1,5-naphthalenediol copolymer sru 122159-64-2P, 4,4'-Biphenyldiol-2,5-bis(dodecyloxy)terephthaloyl chloride copolymer sru 122159-65-3P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-1,5-naphthalenediol copolymer sru 122159-66-4P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-4,4'-dihydroxybenzophenone copolymer sru 122159-67-5P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-4,4'-sulfonyldiphenol copolymer sru 122159-68-6P, 4,4'-Biphenyldiol-2,5-bis(hexadecyloxy)terephthaloyl chloride copolymer sru 151751-87-0P, 4,4'-Biphenyldiol-2,5-bis(octyloxy)terephthalic acid copolymer 160362-84-5P 160362-85-6P 160362-86-7P 160362-87-8P 160362-88-9P 160362-89-0P 160362-90-3P 160362-91-4P 160362-92-5P 160362-93-6P 160362-94-7P, 2,5-Bis(octyloxy)terephthalic acid-1,5-naphthalenediol copolymer 160362-95-8P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-4,4'-thiodiphenol copolymer 160362-96-9P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-4,4'-thiodiphenol copolymer sru 160362-97-0P, Benzidine-2,5-bis(dodecyloxy)terephthaloyl chloride copolymer 160362-98-1P, Benzidine-2,5-bis(dodecyloxy)terephthaloyl chloride copolymer sru 160362-99-2P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-4,4'-oxydianiline copolymer 160363-00-8P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-4,4'-oxydianiline copolymer sru

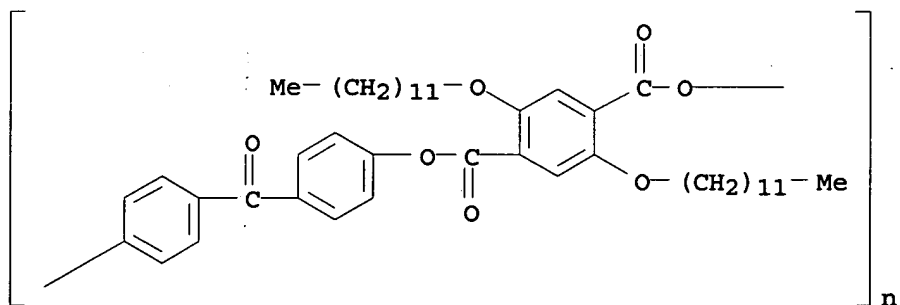
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation, characterization and properties of rigid and semi-rigid thermotropic liquid crystalline polymers with flexible side chains)

IT 122159-66-4P, 2,5-Bis(dodecyloxy)terephthaloyl chloride-4,4'-dihydroxybenzophenone copolymer sru

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation, characterization and properties of rigid and semi-rigid thermotropic liquid crystalline polymers with flexible side chains)

RN 122159-66-4 HCAPLUS

CN Poly[oxycarbonyl[2,5-bis(dodecyloxy)-1,4-phenylene]carbonyloxy-1,4-phenylenecarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L32 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1989:478696 HCAPLUS

DN 111:78696

TI Synthesis and properties of processible wholly aromatic polyesters. New types of liquid crystalline polymers

AU Lee, Kwang Sup; Lee, Byung Woon; Jung, Jin Chul; Lee, Soo Min

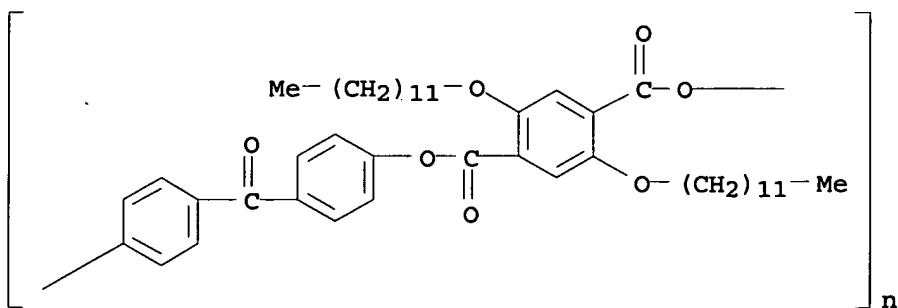
CS Polym. Lab. 2, Korea Res. Inst. Chem. Technol., Taejeon, 302-343, S. Korea

SO Polymer (Korea) (1989), 13(1), 47-55

CODEN: POLLDG; ISSN: 0379-153X

DT Journal
 LA Korean
 AB A series of wholly aromatic polyesters with flexible side chains was synthesized by solution and melt polycondensation from several aromatic diols with 2,5-dialkoxypthaloyl chlorides. The majority of these polymers were soluble in p-chlorophenol, THF, DMF and CHCl₃ at elevated temps. and melting temps. could be systematically reduced by increasing the length of the side chains. The inherent viscosity measured at 45° in p-chlorophenol was 0.15-2.51 dL/g and initial decomposition in TGA occurred at 275 .apprx. 326°.

CC 35-5 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 75
 ST arom polyester liq crystal
 IT Polymer morphology
 (of liquid-crystalline aromatic polyesters)
 IT Liquid crystals
 (polyesters, with flexible side chains, preparation and properties of)
 IT Polyesters, preparation
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (aromatic, liquid-crystalline, preparation and properties of)
 IT Polyketones
 Polysulfones, properties
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (polyester-, aromatic, liquid-crystalline, preparation and properties of)
 IT Polyesters, preparation
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (polyketone-, aromatic, liquid-crystalline, preparation and properties of)
 IT Polyesters, properties
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (polysulfone-, aromatic, liquid-crystalline, preparation and properties of)
 IT 103728-27-4P 103761-98-4P 107503-00-4P 122139-37-1P 122139-38-2P
 122139-39-3P 122139-40-6P 122139-41-7P 122139-42-8P 122139-43-9P
 122139-44-0P 122139-45-1P 122159-62-0P 122159-63-1P 122159-64-2P
 122159-65-3P 122159-66-4P 122159-67-5P 122159-68-6P
 122159-69-7P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (liquid-crystalline, preparation and properties of)
 IT 122159-66-4P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (liquid-crystalline, preparation and properties of)
 RN 122159-66-4 HCAPLUS
 CN Poly[oxycarbonyl[2,5-bis(dodecyloxy)-1,4-phenylene]carbonyloxy-1,4-phenylenecarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)

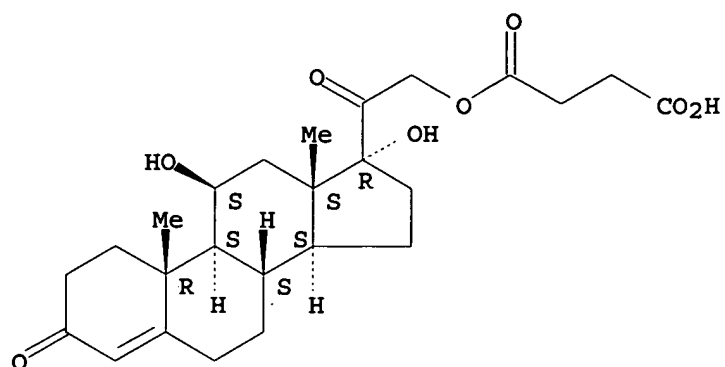


AN 1974:435132 HCAPLUS
 DN 81:35132
 TI Determination of a first order rate constant by different gel chromatography. Dissociation of insulin by alkali
 AU Lovell, S. J.; Nichol, L. W.; Winzor, D. J.
 CS Dep. Biochem., Univ. Queensland, St. Lucia, Australia
 SO FEBS Letters (1974), 40(1), 233-5
 CODEN: FEBLAL; ISSN: 0014-5793
 DT Journal
 LA English
 AB The potential for evaluating a rate constant by gel chromatog. was tested using the recently reported alkaline dissociation of insulin (I) from dimer to monomer. The value of 0.0113 min⁻¹ was obtained for the 1st-order rate constant k by this method; that value is in accord with zonal studies of I dissociation
 CC 9-2 (Biochemical Methods)
 Section cross-reference(s): 6
 ST gel chromatog rate const; insulin dissocn rate detn
 IT Kinetics, reaction
 (determination of, by gel chromatog.)
 IT Kinetics of dissociation
 (determination of, of insulin by gel chromatog.)
 IT Chromatography, gel
 (in kinetics rate constant of first order determination)
 IT 8076-97-9
 RL: ANST (Analytical study)
 (dissociation of, determination of kinetics of, by gel chromatog.)
 IT 8076-97-9
 RL: ANST (Analytical study)
 (dissociation of, determination of kinetics of, by gel chromatog.)
 RN 8076-97-9 HCAPLUS
 CN Pregn-4-ene-3,20-dione, 21-(3-carboxy-1-oxopropoxy)-11,17-dihydroxy-, (11 β)-, mixt. with (E)-(1,2-diethyl-1,2-ethenediyl)di-4,1-phenylene dipropanoate, insulin protamine zinc and (17 β)-17-(1-oxopropoxy)androst-4-en-3-one (9CI) (CA INDEX NAME)
 CM 1
 CRN 9004-17-5
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2
 CRN 2203-97-6
 CMF C25 H34 O8

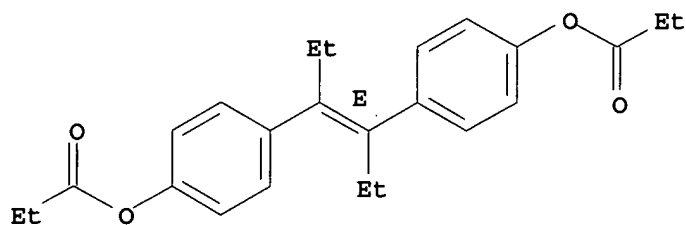
Absolute stereochemistry. Rotation (+).



CM 3

CRN 130-80-3
CMF C24 H28 O4

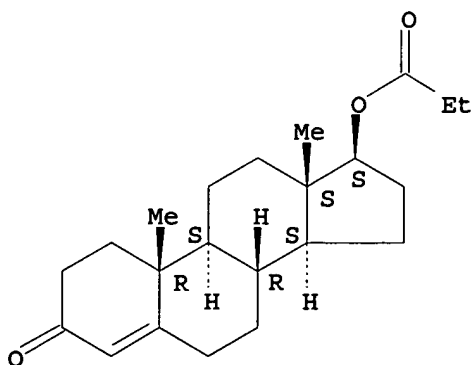
Double bond geometry as shown.



CM 4

CRN 57-85-2
CMF C22 H32 O3

Absolute stereochemistry.



L32 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1972:400585 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

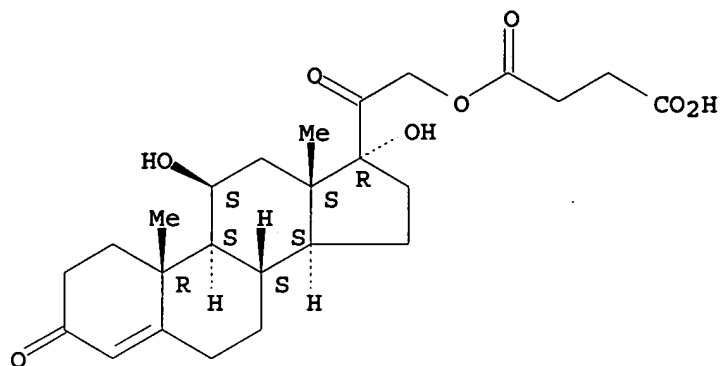
DN 77:585
 TI Effect of fluphenazine and trifluoperazine administration to live animals on in vitro glucose utilization by adipose tissue in the presence of insulin
 AU Dobrzanski, Tadeusz
 CS Panstw. Szpital Mazurkiewicza, Pruszkow, Pol.
 SO Endokrynologia Polska (1971), 22(5), 419-26
 CODEN: EDPKA2; ISSN: 0423-104X
 DT Journal
 LA Polish
 AB The basal glucose [50-99-7] utilization by epididymal isolated adipose tissue from rats treated with fluphenazine (I) [69-23-8] (0.01 mg/100 g/day for 6 weeks) increased parallel to the glucose concentration in the incubation fluid, while an opposite effect was observed with adipose tissue from rats treated with a hormone complex consisting of hydrocortisone hemisuccinate [2203-97-6], testosterone propionate [57-85-2], stilbestrol dipropionate [130-80-3], and insulin zinc protamine [9004-17-5]. The above basal level utilization of glucose in response to insulin was high and increased quickly and proportional to the glucose concentration in the incubation fluid with tissue from either I or the hormone complex-treated groups. trifluoperazine [117-89-5] (0.05 mg/100 g/day for 6 weeks) treatment of rats did not alter the basal glucose utilization by their adipose tissue compared to that untreated controls.
 CC 1-5 (Pharmacodynamics)
 ST fluphenazine adipose glucose metab; trifluoperazine adipose glucose metab; insulin adipose glucose metab; sex hormone adipose glucose metab
 IT Adipose tissue, metabolism
 (of glucose, fluphenazine and hormones and trifluoperazine effect on, insulin in relation to)
 IT 8076-97-9
 RL: BIOL (Biological study)
 (glucose metabolism by adipose response to)
 IT 69-23-8 117-89-5
 RL: BIOL (Biological study)
 (glucose metabolism by adipose tissue response to, insulin in relation to)
 IT 50-99-7, biological studies
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (metabolism of, by adipose tissue, fluphenazine and hormones and trifluoperazine effect on)
 IT 8076-97-9
 RL: BIOL (Biological study)
 (glucose metabolism by adipose response to)
 RN 8076-97-9 HCAPLUS
 CN Pregn-4-ene-3,20-dione, 21-(3-carboxy-1-oxopropoxy)-11,17-dihydroxy-, (11 β)-, mixt. with (E)-(1,2-diethyl-1,2-ethenediyl)di-4,1-phenylene dipropionate, insulin protamine zinc and (17 β)-17-(1-oxopropoxy)androst-4-en-3-one (9CI) (CA INDEX NAME)
 CM 1
 CRN 9004-17-5
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 2203-97-6
CMF C25 H34 O8

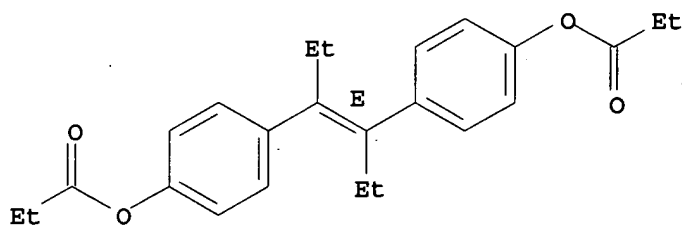
Absolute stereochemistry. Rotation (+).



CM 3

CRN 130-80-3
CMF C24 H28 O4

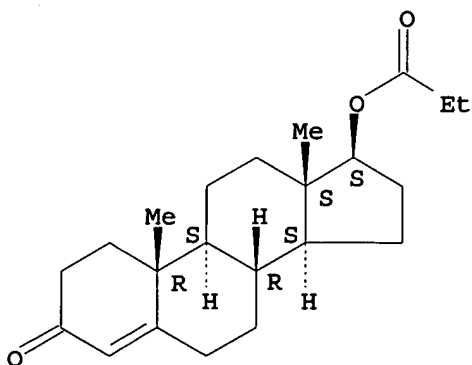
Double bond geometry as shown.



CM 4

CRN 57-85-2
CMF C22 H32 O3

Absolute stereochemistry.



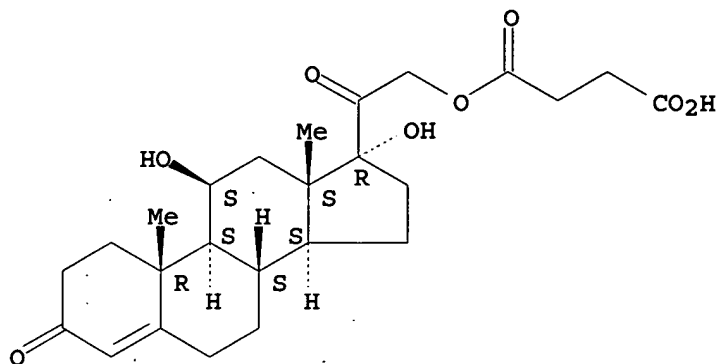
L32 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1972:400584 HCAPLUS
 DN 77:584
 TI Effect of fluphenazine and trifluoperazine administration to live rats on the in vitro glucose utilization by the sciatic nerve
 AU Dobrzanski, Tadeusz
 CS Panstw. Szpital Mazurkiewiczza, Pruszkow, Pol.
 SO Endokrynologia Polska (1971), 22(5), 413-18
 CODEN: EDPKA2; ISSN: 0423-104X
 DT Journal
 LA Polish
 AB Fluphenazine (I) [69-23-8] (0.01 mg/100 g, daily); trifluoperazine (II) [117-89-5] (0.05 mg/100 g, daily); or a hormone complex (III), consisting of hydrocortisone hemisuccinate [2203-97-6], testosterone propionate [57-85-2], stilbestrol dipropionate [130-80-3], and insulin zinc protamine [9004-17-5], were administered i.p. to rats over 6 weeks. In the absence of insulin [9004-10-8], the sciatic nerve released glucose [50-99-7] into the incubation fluid; this effect was not affected by I or II but potentiated by III. In the presence of insulin, glucose uptake by sciatic nerve was proportionate to the level in the incubation fluid; the uptake was increased by I and II, and abolished by addition of III.
 CC 1-5 (Pharmacodynamics)
 ST fluphenazine insulin nerve glucose; trifluoperazine insulin sciatic nerve; sex hormone nerve glucose
 IT Nerve, metabolism
 (glucose, fluphenazine and trifluoperazine effect on, insulin and hormones in relation to)
 IT 69-23-8 117-89-5 8076-97-9
 RL: BIOL (Biological study)
 (glucose metabolism by nerve response to, insulin in relation to)
 IT 9004-10-8, biological studies
 RL: BIOL (Biological study)
 (glucose metabolism by nerve response to fluphenazine and trifluoperazine and hormones in relation to)
 IT 50-99-7, biological studies
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (metabolism of, by nerves, fluphenazine and trifluoperazine and hormones effect on)
 IT 8076-97-9
 RL: BIOL (Biological study)
 (glucose metabolism by nerve response to, insulin in relation to)
 RN 8076-97-9 HCAPLUS
 CN Pregn-4-ene-3,20-dione, 21-(3-carboxy-1-oxopropoxy)-11,17-dihydroxy-, (11 β)-, mixt. with (E)-(1,2-diethyl-1,2-ethenediyl)di-4,1-phenylene dipropionate, insulin protamine zinc and (17 β)-17-(1-oxopropoxy)androst-4-en-3-one (9CI) (CA INDEX NAME)
 CM 1
 CRN 9004-17-5
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 2203-97-6
CMF C25 H34 O8

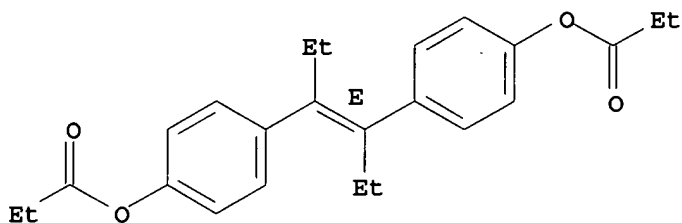
Absolute stereochemistry. Rotation (+).



CM 3

CRN 130-80-3
CMF C24 H28 O4

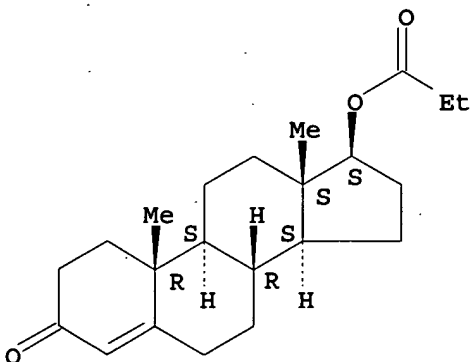
Double bond geometry as shown.



CM 4

CRN 57-85-2
CMF C22 H32 O3

Absolute stereochemistry.



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